## INDEX OF AUTHORS.

## ABSTRACTS A, 1941.

An asterisk denotes a previous abstract.

Anonymous, determination of  $p_H$ , I, 88. High-speed electronic counter, I, 306. High-vacuum gauge, I, 307. Acquired immunity from plant virus diseases, III, 232. Changes in official and tentative methods of analysis, III, 544. International standard for vitamin-E, III, 1038.

Abarbanel, A. R., and Klein, M. D., stilbæstrol, III, 677.

Abbasi, M. A., and Ali, S. M., motion of a mercury index in a capillary tube, I, 116.

Abbie, A. A., anatomy of cerebellum, III, 660.

Abbott, L. D., jun., and Lewis, H. B., amino-acid metabolism. IX. Glycino precursors; availability of N-ethylglycine and glycollic acid for hippuric acid synthesis by the rabbit, III, 378.

Abbott, W. O., Karr, W. G., Glenn, P. M., and Warren, R., absorption of glucose from duodenum, III, 104.

See also Inglefinger, F. J., and Karr, W, G.

Abbruscato, F. A. See Niederl, J. B. Abdon, N.-O., and Hammarskjöld, S. O., quantitative data on antagonism between piperidinomethylbenzdioxan and adrenaline, III, 349.

Abe, H. See Tsurumi, M. Abe, J. See Ishikawa, F. Abe, K. See Wada, M. Abe, R. See Morikawa, K.

Abe, S., homogeneous isotopic interchange reaction between hydrogen and heavy alkaline solution, I, 380. Homogeneous [isotopic] interchange reaction between hydrogen and water, I, 380.

Abel, O. See Duden, C. W. Abelin, I., microchemical determination of urea in biological fluids, III, 235. Microdetermination of potassium in animal tissues, III, 716.

Abell, I., gastrectomy, III, 271. Relation of diabetes to surgery, III, 756.

Abell, R. G., permeability of arterioles, capillaries and venules of living rabbit to vital dye T-1824, III, 5. Abelson, C. M. See Leichenger, H.

Abelson, S. M., and Leichenger, H., diphtheria treated with sulphonamide

compounds, III, 610.

Abernethy, J. L. See Hurd, C. D.

Abernethy, T. J. See Dowling, H. F.

Abidov, S. See Usanovitsch, M.

Abkin, A. See Mamontova, O.

Ablesova, K., Roginski, S. Z., and Zelinskaja, T., adsorption characteristics of gas-promoted nickel, I, 254.

Abljaev, I. See Murtazaev, A.

Abraham, A., innervation of carcinomata,

Abraham, E. P., and Chain, E., enzyme from bacteria able to destroy penicillin, III, 305.

Chain, E., Fletcher, C. M., Gardner, A. D., Heatley, N. G., Jennings, M. A., and Florey, H. W., [pharmacology of] penicillin, III, 1048.

Abrahams, A., effort syndrome, III, 560.

Abrahamson, D. I., resting peripheral blood flow in hypertensive subjects, III,

Abrahamson, E. M., stable solution of tungstic acid [for precipitation of bloodproteins], III, 63.

Abramowitz, A. A. See Levinson, L. Abramowitz, E. W., fixed eruptions from various drugs and other agents, III, 698.

Abrams, A. See Wagreich, H.

Abrams, I. See Sollner, K. Abrams, R. See Altschul, A. M.

Abramson, D. I., and Fierst, S. M., resting blood flow in extremities in hyperthyroid subjects, III, 571.

Abramson, H. A., preseasonal treatment of hay fever by electrophoresis of ragweed pollen extracts into the skin, III, 634.

and Gettner, H., lymphatic escape following electrophoresis of histamine and adrenaline, III, 1048.

and Gorin, M. H., skin reactions. IX.
Electrophoretic demonstration of
patent pores of living human skin; its relation to charge of the skin, III, 203.

and Moore, D. H., electrophoresis with special reference to serum and allergens, III, 225.

Abramson, H. A., Moore, D. H., and Gettner, H., electrophoretically homogeneous component of ragweed producing hay-fever, III, 812. See also Maisel, F. E.

Abreu, S. F., [Brazilian] kieselguhr (diatomite), I, 226.

Abt, A. F., hemolytic disease in infants, III, 165.

and Farmer, C. J., ascorbic acid absorption in infantile diarrhea, III, 1016.

Abuladze, K. C., Georgievskaja, A. M., Petrunkina, A. M., Petrunkin, M. L., and Rosenthal, I. S., mineral composition of blood of a dog deprived of one cerebral hemisphere and of motor cortex of other hemisphere, III, 838.

Acharya, H. K., properties of activated sugar charcoal coated with various organic substances. III. Catalytic decomposition of hydrogen peroxide, I, 303.

Acheson, G. H., and Simeone, F. A., electrical excitability of superior cervical ganglion of cat, III, 499.

Achieser, A., absorption of sound in solids, I, 159. Absorption of sound in metals, I, 159.

Achmatov, A. S., critical thickness of boundary lubricating film for occurrence of viscous resistance, I, 258.

Achamov, E. I., solubility curves, I, 80. Solubility in type I binary systems, I,

Ackerman, D. F., Curl, H., and Crasmon L. A., jun., gastro-intestinal tapy, motility in absence of bile, III, 1017.

Ackman, D. See Fleet, G.

Acree, F., jun., micro- and semi-microKjeldahl determination of nitrogen, II, 386.

Acres, S. F. See Elliott, M. A. Acres, L. S., treatment of sleeping sickness with neocryl, III, 618.

Adachi, B., lobe of azygos vein in Japanese, III, 237.

Adam, N. K., and Balson, E. W., cure of bumping in mercury-glass diffusion pumps, I, 486.

Adam, W. B. See Olliver, M.

Adams, A. H., and Martin, Austin R., action of alkaline-earth chlorides on

emulsions stabilised by sodium oleate, I, 334.

Adams, C. O., and Sarnet, B. G., effects of yellow phosphorus and arsenic trioxide on growing bones and growing teeth, III, 382.

Adams, E. M. See Irish, D. D. Adams, H. E. See Bingham, E. C.

Adams, J. M., primary virus pneumonitis with cytoplasmic inclusion bodies, III.

Adams, M. H., Reeves, R. E., and Goebel, W. F., syntheses of 2:4-dimethyl-8methylglucoside, II, 314.

See also Reeves, R. E.

Adams, R., and Baker, B. R., structure of gossypol. XXV. Synthesis of desapogossypolone tetramethyl ether, II, 142. and Burney, D. E., reactions of 2:8-di-

hydroxy-l-naphthaldehyde, II, 196.
Cain, C. K., and Loewe, S., tetrahydrocannabinol homologues with mari-

huana activity. XI., II, 331. Cain, C. K., McPhee, W. D., and Wearn, R. B., structure of cannabidiol. XII. Isomerisation to tetrahydrocannabinols, II, 374.

Geissman, T. A., and Teeter, H. M., structure of gossypol. XXIV. XXIV. Attempts to prepare desapogossy polone

tetramethyl ether, II, 142.

and Kornblum, N., stereochemistry of diphenyls. LI. Resolution of diphenic acids having many-membered bridges across the 5:5'-positions; novel type of restricted rotation, II, 101.

Loewe, S., Jelinek, C., and Wolff, H., tetrahydrocannabinol homologues with

marihuana activity, II, 331.

and Rogers, E. F., structure of monocrotaline. V. Retronecine, a derivative of 1-methylpyrrolizidine. VI. Structure of retronecine, platyneeine, and retronecanol, II, 110, 154.

Smith, C. M., and Loewe, S., tetrahydrocannabinol homologues with mari-

huana activity. X., II, 331. and Whitehill, L. N., synthesis of manymembered ring compounds from two ωω'-difunctional molecules, II, 360.

Adams, R. C. See Lundy, J. S.
Adams, W., and Sandiford, I., measurement of cardiac output; improvement of acetylene method providing inherent check, III, 333.

Adamson, D. C. M., and Evers, N., effect of polar solvents on vitamin-A determinations by spectrophotometric method,

III, 455.

Adamstone, F. B., brain degeneration in young chicks reared on iron-treated vitamin-E-deficient ration, III, 895. tion to vitamin-E to substances of thracene group, III, 896. Erythro-G-deficient ration supplemented with agocytosis in chicks reared on vitaminhalibut-liver oil, III, 896. Histological evidence indicative of natural occurrence of vitamin-E deficiency in chick, III, 896. Relation to vitamin-E to effectiveness of testosterone injected into capons, III, 896. Cholesterol content of brain in nutritional encephalomalacia of vitamin-E-deficient chicks, III, 896. Reticulum cell sarcoma following ulceration of intestine in vitamin-E-deficient chicks, III, 896.

Addicott, F. T., vitamin-D<sub>1</sub> in relation to meristematic activity of isolated pea roots, III, 938.

See Harris, Milo. Addington, E. A. Addington, L. H. See Cunningham, O. C. Addis, T. See Yuen, D. W. Addiss, G. See Ritz, N. D.

Adel, A., and Lampland, C. O., atmospheric absorption of infra-red solar radiation at the Lowell observatory. III. and IV. Spectral intervals 8.0-11.0µ, and 11.0- $14.0\mu$ ., I, 319.

Ades, H. W., connexions of medial genicul-

ate body in cat, III, 740.
Adkins, H., Frank, R. L., and Bloom, E. S., products of hydrogenation of lignin, II, 144.

and Reid, W. A., catalytic dehydrogenation of tetrahydronaphthalene and 1:2:3:4-tetrahydro-2-naphthol in liquid phase, II, 164.

Richards, L. M., and Davis, J. W., catalytic dehydrogenation of hydroaromatic compounds with benzene, II, 246.

Sec also Baker, R. H., Burks, R., jun., Reeve, W., and Wayne, W. Adkison, J. L. See Gray, J. S.

Adler, F., slowing down of neutrons by elastic collisions, I, 440.

Adler, F. H. See McDonald, R. Adler, H., adrenal glands and function of thymus, III, 184. Physiology and pathology of thymus, III, 263.

Adler, H. F., Atkinson, A. J., and Ivy,
A. C., motility of human colon:
dysnergia of colon, or "unstable colon, III, 1017.

and Ivy, A. C., morphine-atropine antagonism on colon motility in the

dog, III, 217.

Templeton, R. D., Ferguson, R. L., and Galapeaux, E. A., motor reaction of dog's colon to intravenous injections of E. coli communior, Spirillum rubrum, and Staphylococcus aureus, III, 105.

See also Templeton, R. D.Adler, J., shielded glass electrode, I, 90.

Adler, S., experimental visceral leishmaniasis in man, III, 473.

Adler, S. S. See Campbell, M. Adlersberg, D., and Weingarten, enteropathy in deficiency states, III, 512.

Adolph, W. H., and Liang, C. C., calcium in alimentary tract of rat, III, 363. See also Yueh, C. II.

Adrian, E. D., peripheral sense organs and afferent discharges to cerebral cortex, III. 991.

Adriani, J., Martin, S. J., and Rovenstine, E. A., chromodacryorrhœa and parasympathetic action of cyclopropane, III, 462.

and Rovenstine, E. A., effects of spinal anæsthesia on venous pressure in men,

III, 561.

Adson, A. W. See Allen, E. V. Aebersold, P. C. See Stone, R. S. Agarkova, N. J. See Charin, A. N. Agarwal, S. P. See Dhar, N. R. Agasse-Lafont, E. See Mutermilch, S.

Agatov, P., acylated derivatives of tobacco mosaic virus protein, III, 935.

Agatston, S. A., spasm of retinal artery, with thrombosis of retinal vein, III, 748.

Agematsu, H., simultaneous micro-determination of elements in organic compounds containing alkali, II, 343.

Ageno, M., Amaldi, E., Bocciarelli, D., Cacciapuoti, B. N., and Trabacchi, G. C., fission yield by fast neutrons, I, 395. Agett, A. H. See Huston, R. C.

Aggeler, P. M. See Lucia, S. P.

Agladze, R. L., complex ion in solutions containing manganese and ammonium salts, I, 15.

Agnew, W. J., cyanometric determination of cobalt and nickel, I, 58.

Agnor, E. B., blood sedimentation test as routine diagnostic procedure, III, 417.

Agrell, S. O., dravite-bearing rocks from Dinas Head, Cornwall, I, 489.

Agren, G. See Taylor, Alfred.

Agronomov, L. E., structure of hydrides of boron. III. Structure and properties of ammoniates of boron hydrides, I, 74. Agruss, M. S. Sce Bell, R. T.

Agte, A. N., Archangelski, P. A., and Birger, N. I., composition of precipitates formed when solutions of tripotassium phosphate and magnesium chloride are mixed, I, 18.
Aguila, P. J. See Turangni, R. A.

Ahlmark, A., and Kornerup, T. G., therapeutic results with histaminase, III, 614.

Ahlquist, R. P., and Dille, J. M., reactions of alcohol-tolerant rabbits to pentobarbital, evipal, ether, amidopyrine, and metrazol, III, 219.

Ahmed, I. A., structure and behaviour of chromosomes of sheep during mitosis

and meiosis, III, 67.

Aikenhead, A. E. See Pilcher, F., jun.

Ainslie, R. G. See Alsever, J. B.
Airan, J. W., and Shah, S. V., action of
thionyl chloride, sulphur dichloride, and sulphur monochloride on naphthol derivatives, II, 97.

Aird, R. B., experimental exophthalmos and associated myopathy induced by the thyrotropic extract, III, 257.

Cohn, W. F., and Weiss, S., convulsive action of triphenyl phosphite, III, 697.

Aisner, M. See Jankelson, I. R. Aitken, R. S. See King, E. J. Aivazov, B. V., Keyer, N. P., and Neumann, M. B., influence of peracetic acid on coldflame oxidation of acetaldehyde, I, 340.

Akashi, K., catalytic hydrogenation of organic compounds. I. Acetone, II, 351. Akelaitis, A. J., corpus callosum. II. Higher visual functions in each homonymous field following complete section of corpus callosum, III, 750.

Akerberg, E., hyperinsulinism and surgery, III, 95.

Akerlof, G., and Bender, P. J., density of aqueous solutions of potassium hydroxide, I, 250.

Akesson,  $\hat{A}$ . See Theorell, H. Akiyama, K., synthesis and X-ray analysis of gehlenite and anorthite, I, 134. Analysis of calcined lime by X-rays, I, 452.

Akiyama, T., influence of hibernation on virulence of virus of lymphogranulomatosis inguinale, III, 808.

Akulov, N. S., genesis of chemical reactions, I, 173.

and Kirenski, L. V., magneto-caloric effect, I, 454.

and Strutinski, N. I., phase transformations of steel, I, 455.

Akutin, M. S. See Losev, I. P.

Alban, H., hereditary hæmorrhagic teleangiectasis, III, 844.

Alber, H. K., systematic qualitative organic micro-analysis; determinations of specific gravity, II, 79, 385.
See also Butt, W. G., and Royer, G. L.

Albergaria Ambar, F. See Moniz

Bettencourt, J.

Albers, D., activators of alkaline phosphatases, III, 1063.

Albers, V. M., and Knorr, H. V., spectroscopic studies of simpler porphyrins. III. Absorption spectra of ms-tetraphenylporphine and a series of its metal complex salts, I, 397.

See also Knorr, H. V.

Albert, A., acridine syntheses and reactions. I, and II. Synthesis of proflavine from m-phenylenediamine and its derivatives, II, 148, 333.

Goldacre, R., and Rubbo, S. D., correlation of basicity and antiseptic action in an acridine series, III, 612. Physical and biological properties in acridine

series, III, 925.

and Ritchie, B., reduction of aromatic nitro-compounds by hydrogen and Raney nickel at atmospheric temperature and pressure, II, 39, 364. Syntheses of aminoacridines. I. The five isomeric monoaminoacridines, II, 232.

Albert, M. M., See Shapiro, S.

Albert, Z., changes in aorta in children and their relation to atherosclerosis, III,

Alberts, E. See Wasserman, P.
Albrecht, A., and Geiser, O., AlbersSchönberg disease (marble bones), III,

Albright, F., Smith, P. H., and Richardson, A. M., postmenopausal osteoporosis, III, 1012.

Albritton, A. S. See Leidenheimer, H. Alburger, D. E., focussing the spectrograph, I, 222.

Alden, H. S. See Jones, J. W.

Alder, A., tonic action of phosphorus, III, 462. Classification of pregnancy anemias, III, 551.

Aldred, P., Hallpike, C. S., and Ledoux, A., osmotic pressure of endolymph [of ear],

Aldridge, A. G. V., changes in blood produced by dehydration in infancy, III, 644.

Alechinsky, A., shock effects following administration of irradiated histidine, III, 479.

Aleglan, B. D., conductivity of ethyl thiocyanate solutions, I, 378.

Aleman, R., serum and sulphanilamides in treatment of influenzal meningitis, III,

Alexander, A. E., surface ageing of solutions, I, 80. Interfacial tension, viscosity, and potential changes produced by insoluble monolayers at oil/water interface, I, 207. Structure of condensed unimolecular films, I, 374.

and Rideal, E. K., hydrogen linking in protein structure, I, 245.

Alexander, E. A., and Lambert, J. D., second virial coefficient of acetaldehyde, I, 369.

Alexander, F. A. D. See Himwich, H. E. Alexander, H. E., Craig, H. R., Shirley, R. G., and Ellis, C., validity of atiological diagnosis of pneumonia in children by rapid typing from nasopharyngeal mucus, III, 474.

Alexander, H. L., treatment of allergic disorders with histamine and histaminase, III, 232.

See also Williams, R.

Alexander, J. See Renaux, E. Alexander, L. See Klug, H. P. Alexander, L. J. See Schoch, A. G.

Alexander, L. W., use of prostigmin methosulphate in deafness, III, 751.

Alexander, O. R., and Hall, N. F., measurement of excess weight of air oxygen by exchange with inorganic salts, I, 133.

Sec also Hall, N. F.

Alexandrov, A. P., and Lazurkin, J. S., polymerides. I. Elastic deformation, Î, 112.

See also Voroshcov, N. N.

Alexandrovitsch, V. A., and Scheludko, M. K., technology of preparation of heavy water, I, 123.

Alexeeva, K. I., number of decay electrons accompanying penetrating corpuscular radiation, I, 288.

Alexeevski, E. V., and Mintel, A. M., recovery of volatile solvents by sorption. V. Sorption on and desorption from active charcoal of ethyl acetate, I, 373.

Alexentzeva, E. S., sugar content in normal arterial and venous blood, III, 731.

Alfaro, V. R., diagnostic value of Barany tests in labyrinthine and intracranial disease, III, 670.

Alfin, R. See Zahnd, H.

Alford, K. M., prognosis and treatment of acute diffuse peritonitis in children since advent of chemotherapeutic drugs, III, 693.

Ali, S. M., comparative anatomy of tail in Sauria and Rhynchocephalia. I., Ill,

See also Abbasi, M. A.

Alicino, J. F., micro-determination of sulphur; modified bomb method, II, 344.

See also Sandza, J. G.

Alimarin, I. P., and Ivanov-Emin, B. N., solution of coal ash for determination of germanium. IV., I, 128. Alimchandani, R. L. See Dharwarkar,

H. V., and Kulkarni, D. R.

Aline, E. See Snell, E. S.
Alington, B. K. See Widdowson, E. M. Allan, D. A., geology of Highland Border from Glen Almond to Glen Artney, I,

Allan, G. E., velocity of sound in binary

alloys, I, 405.

Allchin, J. P. See Friend, J. N.

Allcroft, W. M., hæmoglobin level of cows and sheep, III, 724.

and Folley, S. J., serum-phosphatase of cattle and sheep, III, 494.

Allee, W. C., Collias, N. E., and Beeman, E., effect of thyroxine on social order in flocks of hens, III, 94. See also Finkel, A.J.

Allen, A. See Gellhorn, E.

Allen, A. C., intercapillary glomerulo-sclerosis: lesion associated with diabetes mellitus, III, 1020.

See also Rosenberg, N., and Siegal, S. Allen, A. O., high-temperature photolysis of acetone and action of free methyl

radicals on propane, I, 276.

Allen, C. F. H., and Gates, J. W., jun., identification of carbonyl compounds by 3-carbohydrazido-1-methylpyridinium p-toluenesulphonate, II, 350.

Allen, D. See Collier, H. B.

Allen, E., and Gardner, W. U., cancer of cervix of uterus in hybrid mice following administration of cestrogen, III, 1025.

See also Chamberlin, T. L., and Duncan, P. A.

Allen, E. A. See Olsen, M. W.

Allen, E. S., and Allen, J. D., rôle of Miller-Abbott tube in treatment of intestinal obstruction, III, 881.

Allen, E. V., and Adson, A. W., treatment medical versus of hypertension; surgical, III, 81.

See also Butt, H. R., MaeLean, A. R., Mountain, G. E., and Smith, L. A.

Allen, F., and Schwartz, M., validity of Ferry-Porter law in depressed and enhanced states of retinal sensitivity, III, 92. Effect of stimulating vision, hearing, taste, and smell on sensitivity of vision, III, 92.

Allen, F. M., combinations of lead, arsenic, and other chemicals with experimental

asphyxia of tumours, III, 772.

Allen, F. W., and Eiler, J. J., action of crystalline ribonuclease on ribonucleic acid, III, 387.

Allen, H. S. See Mason, M. L.

Allen, I., nutrition and dental caries in school children, III, 371.

Allen, J. D. See Allen, E. S.

Allen, J. G., Julian, O. C., and Dragstedt, L. R., use of serial dilutions in determination of prothrombin by one-stage technique, III, 648.

Allen, J. S. V., Pool, M. L., Kurbatov, J. D., and Quill, L. L., artificial radioactivity of

46Ti, 1, 395.

Allen, L. A., protein production by nitrogen-fixing bacteria under conditions of continuous aëration, III, 926.

Allen, M. J., perfusion pump, III, 63.
Allen, R. H., and Witzemann, E. J.,

quantitative studies of oxidation of fatty acids by hydrogen peroxide; interpre-tation of reaction mechanism, II, 278.

Allen, R.J. L., determination of phosphorus, III, 152.

Allen, T. H., enzymes in ontogenesis (Orthoptera). XI. Cytochrome oxidasc, III, 156.

and Bodine, J. H., enzymes in ontogenesis. XVI. Activation of protyrosinase by sodium alkyl sulphates, III, 795.

Allen, W. M. See Stephens, D. J. Allenby, O. C. W. See Stevens, P. G.

Alles, G. A., and Feigen, G. A., comparative physiological actions of phenyl-, thienyl-, and furyl-isopropylamines, III, 915.

See also Hawes, R. C.

Allewelt, A. L., and Day, A. R., preparation of amino-ketones and amino-alcohols ac-tetrahydro-\beta-naphthylcontaining amine, tetrahydroisoquinoline, or Bphenylethylamine nucleus, II, 288.

Allin, K. N., and Meyer, O. O., development of eosinophilia following liver therapy,

III, 244.

Allison, F. E., and Ludwig, C. A., legume nodule development in relation to available energy supply, III, I49.

Allison, J. B., Anderson, J. A., and Cole, W. H., electrical conductivity and bacterial metabolism, III, 49.

Allison, J. L., mouth-controlled valve for compressed air in glass blowing, I, 350.

Allison, L. R., Hartung, E.J., and Heymann, E., anomalous concentration cell; constitution of solutions of stannous chloride in water and in hydrochloric acid, I, 85.

Allison, R. S. See Dean, D. M. Allmark, M. G., and Morrell, C. A., biological assay of digitalis by overnight frog method, III, 381.

See also Morrell, C. A.

Allport, N. L., organic reagents for colorimetric analysis. I .-- IV. Determination of metals and inorganic radicals, I, 128.

Allsopp, C. B., photo-electric method for colorimetric determination of hydrogen peroxide with titanium [or vanadium] sulphate, I, 425. Photo-electric estimation of indole, II, 388.

Almansi, R. See Impastato, D. J.

Almour, R., drug therapy in common

otolaryngological conditions, III, 751.

Almquist, H. J., [determination of]
vitamin-K, III, 779. Chemical determination of quality in animal
protein concentrates, III, 890.

and Klose, A. A., comparative activities of antihæmorrhagic compounds, III,

and Mecchi, E., vitamin-A requirements of laying hens, III, 23. Influence of bile acids, vitamin-K, and cinchophen on chick gizzard lining, III, 582.

and Zander, D., adsorbing charcoals in chick diets, III, 593.

See also Klose, A. A., and Stokstad, E. L. R.

Almy, G. M., and Anderson, S., lifetime of fluorescence in diacetyl and acetone, I, 5. Aloisi, M., and Polanyi, V., paralysis of polyneuritic type in rats suffering from avitaminosis-E; synergism between vitamin-B and -C, III, 30.

Alpern, A. N. See Yardumian, K. Y. Alperovitsch, E. L. See Levant, G. E. Alpers, B. J. See Schlezinger, N. S.

Alperstein, B. B., oral and parenteral pollen

therapy, III, 147.

Alpert, G. R. See Casmajor, L.

Alsever, J. B., and Ainslie, R. G., preparation of dilute blood plasma, III, 492.

Alstead, S., ammonium chloride and ammonium carbonate [as expectorants], III, 614.

Alsted, G., chlorosis; essential juvenile iron deficiency anæmia, III, 324.

Alston, J. M., therapeutic serum and leptospiral agglutination tests, III, 142. Alsup, F. W., photodynamic action in eggs

of Nereis limbata, III, 360.

Alt, H. L. See Wilson, Earle A. Alt, S. A., Desai, R. D., and Shroff, H. P. heterocyclic compounds. XIII. Abnormal alkaline hydrolysis of 4-isopropyl-1:2-a-naphthapyrones, II, 268.

Altherg, V., and Layrov, V., crystallisation of water. III., I, 248.

Althausen, T. L. See Bassett, A. M.,

and Stockholm, M.

Altmann, G. O., Walker, H. N., and Hess, V. F., counter studies on cosmic rays at sea level, I, 69.

Altmann, M., bioelectric potential as indicator of ovulation in hen, III, 192.

Altschul, A. M., Abrams, R., and Hogness, T. R., cytochrome-c peroxidase, III,

Altsehul, R., and Bartlett, P. D., "positive halogen" in ketones and esters, II, 67. Altschule, M. D., Volk, M. C., and Henstell,

H., cardiac and respiratory function at rest in patients with polycythæmia vera, III, 79.

See also Derow, H. A., and Gilligan, D. R.

Altschuler, V. S., and Tschuchanov, Z. F., reduction of carbon dioxide by carbon, I, 171.

Aluise, V. A., micro-determination of mol. wt. of dark-coloured organic materials; cryoscopic method, I, 307.

Alvarez, L. W., and Pitzer, K. S., scattering of 20° neutrons in o- and p-hydrogen, I, 68.

See also Wiens, J.

Alvarez, W. C., hypothalamus and nervousness, III, 255.

Pilcher, F., Foley, M. A., Mayer, A., and Osterberg, A. E., effects on human gastric juice of six weeks' deprivation of vitamin- $B_1$ , III, 116.

See also Vanzart, F. R. Alvarez-Tostado, C. See Luck, J. M.

Alvari, G. See Heller, G. Alyea, E. P., and Roberts, L. C., chemotherapy in non-specific infections of urinary tract, III, 293.

Amagasa, M., and Yanagita, T., industrial uses of cane sugar. I. Catalytic effects of pyridine on acetylation of sucrose, II, 161.

Amaki, T., and Sugimoto, A., relative cross-sections of the (n, a) and (n, p) reactions produced by fast neutrons, I, 2, 440.

Amaldi, E. See Ageno, M.

Amann, A. See Dirr, K., and Straub, W. Ambarzumian, R. S. Sce Gindin, L. G.

Ambelang, J. C., and Johnson, T. B., pyrimidines. CLXXI. Derivatives of pyrimidine-5-carboxylic acid. CLXXII. Hydrogenolysis of 4-iminobarbituric acid, II, 270, 335.

Ambler, A. C., cyclopropane and avertin anæsthesia [in thoracoplastics], III,

Ambler, P., and Griggs, M. A., determination of metals in pectinates, III, 407.

Ambrus, J. von, and Valyi-Nagy, T. insoluble sensitising substance produced by BCG bacilli, III, 54.

Amdur, E., photometric determination of potassium with dipicrylamine, I, 127.

Amdur, I., and Pearlman, H., high-velocity atomic beams, I, 67. Helium repulsive potential from collision cross-section measurements, I, 395.

American Medical Association, Chemical Laboratory, sulphathiazole, III, 458. Council on Pharmacy and Chemistry, lipocaic, III, 271. Intravenous drip chemotherapy of syphilis, III, 296. Bromide intoxication, III, 298. Histaminase, III, 302. Gonadotropic hormone from serum of pregnant mares, III, 360. Sulphathiazole, III, 458. Organic mercurial compounds as bactericidal agents, III, 462. Guanidine hydrochloride, III, 464. Phenothiazine, III, 464. Progesterone and corpus luteum hormones, III, 762. Nutritionally enriched flour and bread, 1030. Acetyl-β-methylcholine chloride, III, 1049.

Ameuille, P., and Fauvet, J., pulmonary embolism, III, 174.

Amies, C. R., stability of tetanus antitoxin,

Amis, E. S., and Holmes, F. C., dielectric and solvent offects on sucrose inversion by hydrochloric acid, I, 475.

Ammermann, O., lesion of inferior olives in myoclonus epilepsy, III, 991.

Ammundsen, E, presence of non-carbon monoxide-combining (inactive) hæmoglobin in blood, III, 555.

Amore, S. T. See Bradsher, C. K. Amoroso, E. C., Franklin, K. J., and Prichard, M. M. L., cardio-vascular system and lungs of African elephant fœtus, III, 821.

Amstutz, E. D., and Plucker, J., 3rd,  $\beta$ -2-furylethanol and  $\beta$ -2-furylethyl and \$-2-furylethyl chloride, II, 107.

Amtman, L. See Meyer, K. A. Amundsen, E., sterilisation during puerperium, III, 359.

Amundsen, L. H., and Krantz, K. W., β-dialkylaminoethyl bromide hydrobromides and β-dialkylaminoethylamines, II, 88.

and Longley, R. I., jun., arylsuphonyl derivatives of ethylenediamine, II, 5.

and Malentacchi, L. A.,  $N^1$ - $\beta$ -aminoethyl- and N1-β-diethylaminoethylsulphanilamide, II, 319.

Amzel. See Hirszfeld, L.

Anagnostidis, N., action of various substances in treatment of third degree burns [in rabbit], III, 222.

Anantakrishnan, C. P., and Venkataraman, P. R., garlic (Allium sativum, L.). III. Reserve polysaccharides, III, 483.

Anantakrishnan, S. V., reactions in solu-

tion, I, 171. and Pasupati, V., substitution in poly-cyclic systems. II. Nitro-derivatives of 9-fluoryltrimethylammonium com-

pounds, II, 248. and Venkataraman, R., kinetics of the olefine-bromine reaction. I. Dark reaction in acetic acid solution. II. Critical increment of reaction in acetic

acid, I, 51.

Anantapadmanabhan, T. S. See Krishnan, K.S.

Ananthanarayanan, N., spectroscopic examination of diffraction of light, I,

Ananthasubrahmanyam, C. K. See Narayan, A.L.

Anchel, (Miss) M., and Blatt, A. H., cyclic dehydration of diphenyl derivatives to fluorenes, II, 286.

Andberg, W. G., wound healing in sheep [use of "Bipp"], III, 1049.
Boyd, W. L., and Code, C. F., pul-

monary emphysema in horse fol-lowing injection of histamine, III, 1050.

Andersen, E. B., search for element 85, I,

Anderson, A. B. See Tompsett, S. L. Anderson, A. C. See Sachs, A.

Anderson, A. Greig. See Morgan, T. N.
Anderson, Adolph G., and Stegeman, G.,
heat capacities and entropies of disaccharides, I, 457.

Anderson, A. L., and Hammerand, V., contact and endomorphic phenomena associated with a part of the Idaho batholith, I, 435.

Anderson, C. G. See Macfarlane, R. G. Anderson, C. M. See Ennor, A. H., and Fantl, P.

Anderson, C. T. See Kelley, K. K. Anderson, C. W., determination of zinc by

precipitation as zinc anthranilate; gravimetric semi-micro-method, I, 387.

Anderson, D., jun., use of paredrinol [veritol] to correct fall in blood pressure during spinal anæsthesia, III,

Anderson, Edward. See Gouley, B. A. Anderson, Ernest, Gillette, L. A., and Seeley, M. G., mucilage from Indian wheat, Plantago fastigiata, III, 943.

Kesselman, J., and Bennett, E. C., polyuronide hemicelluloses from sapwood and compression wood of white pine, III, 943.

Anderson, Evelyn, Haymaker, W., and Henderson, E., sublingual administration of deoxycorticosterone acetate, III, 349.

Herring, V., and Joseph, M., salt after adrenal ectomy. III. Carbohydrate stores in adrenalectomised rats given sodium chloride, III, 573.

and Joseph, M., urinary nitrogen and survival time of fasted adrenalectomised salt-treated rat, III, 755.

Anderson, E. E., and Mack, J. E., low terms in Co vII and Ni vIII, I, 309. Anderson, E. H. See Van Niel, C. B.

Anderson, E. I. See Seeley, S. IV.

Anderson, E. M., loss of heat by conduction from earth's crust in Britain, I, 20.

Anderson, E. R. See Karabin, J. E.
Anderson, E. V., chemotherapy of infectious diarrhea with sulphathiazole, III, 1046.

Anderson, E. W., psychiatric complications

of hypoglycamia, III, 179.

Anderson, F. F., glass-capsule manometer for recording blood pressure, III, 843.

Anderson, G. C., case of polyradiculo-neuritis, III, 859. Mental symptoms in frontal lobe tumours [and rôle of psychiatrist in diagnosis], III, 859.

Anderson, G. W. See Wise, G. H. Anderson, George W. See Roblin, R. O., jun.

Anderson, H., and Belfrage, H., BCG vaccination, III, 54.
Anderson, H. D., Elvehjem, C. A., and

Gonee, J. E., jun., comparison of nutritive values of raw, pasteurised, and evaporated milks for the dog, III, 773.

Johnson, B. C., and Arnold, A., com-

position of dog's milk, III, 18. Underwood, E. J., and Elvehjem, C. A., maintenance of cobalt polycythæmia

in the rat, III, 490.

Anderson, H. H., utility of alum-precipit-

ated toxoid, III, 935. and P'an, S. Y., anticonvulsant activity of 1-diethylacetyl-5:5-cyclopentamethylenebiuret, sodium diphenylhydantoinate, and sodium pento-barbital in mice, III, 1052.

See also Chen, Y. P., Hu, M. H., and Li,

Anderson, H. I. G. See Orgain, E. S. Anderson, H. L., Fermi, E., and Grosse, A. V., branching ratios in fission of

uranium (235), I, 95.

Anderson, H. W., and Rollefson, G. K., reactions of acetyl radical, I, 276.

Anderson,  $J_{\cdot \cdot}$ , artificial insemination of cattle and sheep in Kenya, III, 764. Anderson, J. A. See Allison, J. B.

Anderson, J. P., treatment of barbiturate intoxication with reference to picrotoxin, III, 1053.

Anderson, L. J. See Fox, D. L. Anderson, L. R. See Reeves, D. L.

Anderson, N. A., Brown, E. W., and Lyon, R. A., comparison of maternal histories of premature and full-term infants, III, 487.

Anderson, P. A., preparing monocrystalline metal surfaces for work function study; work function of Ag (100), I, 367.

Anderson, R. See Billman, J. H. Anderson, R. B. See Rowley, H. H.

Anderson, R. C. See Lemons, J. F.Anderson, R. J., microscopical features of ore from Sunshine Mine, Idaho, I, Anderson, Rudolph J., Peek, R. L., and Creighton, M. M., chemistry of lipins of tubercle bacilli, LXI. Polysaccharide of phosphatide obtained from cell residues from preparation of tuberculin, III, 144.

See also Lesuk, A., and Peck, R. L. Anderson, R. S. See Friedewald, W. F.

Anderson, S. See Almy, G. M. Anderson, T., and Cairns, J. G., sulphapyridine and serum in pneumonia, III, 214.

Anderson, T. F., and Stanley, W. M., electron-microscopic study of reaction between tobacco mosaic virus and its antiscrum, III, 631. Study of purified viruses with electron microscope, III, 631.

See also Morton, H. E.Anderson, T. H. See Freeman, G. G.Anderson, W. A. D., sucrose nephrosis, III,

Michelson, I. D., and Dunn, T. M., histoplasmosis in infancy, III, 645.

Anderson, W. E. See Pickens, M.
Anderson, K. See Hedvall, J. A.
Andervont, H. B., susceptibility of hybrid mice to induced and spontaneous tumours, III, 368. Influence of foster nursing on incidence of spontaneous mammary cancer in resistant and susceptible mice, III, 369. Effect of colchicine and bacterial products on spontaneous transplantable and

tumours in mico, III, 589. and McEleney, W. J., spontaneous tumours in a subline of strain  $C_3H$ 

mice, III, 1025.

and Shimkin, M. B., biologic testing of carcinogens. II. Pulmonary-tumour-induction technique, III, 368. Tumours in mice injected with colloidal thorium dioxide, III, 589.

See also Shimkin, M. B.

Andes, A.J. See Andes, J.E.

Andes, J. E., Van Liere, E. J., Andes, A. J., and Vaughan, P., guanidine and other blood constituents in experimental anoxæmia, III, 246.

Ando, S., mechanism of catalytic hydrogenation of phenol under high pressures. VI. Comparison of two molybdenum catalysts. VII. Comparison of hydrogenated products of cyclohexanol and cyclohexanc, II, 124, 189.

Ando, Tokuhiro, effect of diet on incidence of experimental liver carcinoma. III., Ill, 205, 451. Experimental liver tumour induction and cercals. IV. Tumour induction and cod-liver oil, III, 1025.

Ando, Tosio. See Urushibara, Y. Andrade, E. N. da C., sensitive flame, I,

349. Andress, K. R., and Saffe, O., X-ray study carnallite-bromocarnallite mixed-

crystal series, I, 229.

Andrew, W., cytological changes in senility in trigeminal ganglion, spinal cord, and brain of mouse, III, 549. Phagocytic activity of oligodendroglia and amphicytes in brain, spinal cord, and semilunar ganglion of mouse during inanition, III, 741.

Andrewartha, G. G., and Evans, E. J., Hall effect and other physical properties of copper-tin system of alloys, I, 204.

Andrewes, C. H., and Lush, D., experimental meningococcal meningo-encephalitis in mice, III, 312.

Andrews, A. H., Roth, L. W., and Ivy, A. C., use of reduced atmospheric pressure iu treatment of paranasal ŝinusitis, III, 848.

Andrews, D. H., Brucksch, W. F., jun., Ziegler, W. T., and Blanchard, E. R., superconducting films as radiometric receivers, I, 367.

Andrews, E. D., Elliott, J., and Busby, G. F., blood plasma in restoration of physiological balance in the sick child, III, 329.

Andrews, F. N., thermo-regulatory function of rat scrotum. I. Normal development and effect of castration, III, 355

Andrews, H. L. See Oberst, F. W. Andrews, J. C., and Webb, B. D., optical activity of quinine and its salts in mixtures of water and ethyl alcohol, II, 177.

See also Kyker, G. C.

Andrews, J. S., and Brooks, H. J., determination of blood in sheep faces by Evelyn photo-electric colorimeter, III, 513.

Andrews, K. R., and Muether, R. O., effect of diet on arterial and venous glucose-toleranco curves in rheumatoid arthritis, III, 379.

See also Muether, R. O. Andrews, K. W., Davies, H. E., Hume-Rothery, W., and Oswin, C. R., equilibrium diagram of system silverzinc, I, 163.

and Hume-Rothery, W.,  $a/\beta$  brass type of

equilibrium, I, 461.

Andronikasehvili, E., and Tzabadze, I., preparation of colloidal suspensions of metals and their alloys, I, 412.

Andrns, P. M., emphysema under forty; clinical and pathological significance, III, 497.

Andrus, W. De W., and Lord, J. W., clinical investigations of factors causing prothrombin deficiencies, III, 75. See also Lord, J. W.

Aneli, N. A., inhibiting action of blue light on germination of tomato seeds, III, 481. Anft, H., liquefaction of gelatin by Bact.

typhi flavum, III, 311.
Angelesco, C. See Nitzescu, I. I.

Angerer, K. von, and Küster, E., delaying effect of highly concentrated media on destruction of bacteria and spores by heat, III, 536.

Angerer, R. von, resistance of bacillary spores, III, 306.

Angevine, D. M., comparison of cutaneous sensitisation and antibody formation in rabbits immunised by intravenous or intradermal injections of indifferent or hæmolytic streptococci and pneumococci, III, 804.

and Huntington, R. W., jun., experimental ocular tuberculosis in normal and immunised rabbits, III, 629.

See also Rothbard, S.

Angevine, W. K., pyrethrum as parasiticide in man, III, 527.

Angulo y Gonzalez, A. W., differentiation of motor cell columns in cervical cord of albino rat fœtuses, III, 485.

Angyal, L. von, thumb-mouth agnosia: form of Gerstmann's syndrome, III, 992.

See also Benedek, L.

Anhorn, V. J., and Hunt, H., liquid ammonia as a solvent. IX. Activity coefficient of potassium iodate at 25°, 1,

Anker, R. M., and Cook, A. H., action of organo-alkali compounds on benzonitrile, II, 233.

Ansbacher, S., bio-assay of vitamin-K, III, 377.

See also Martin, G.J.

Anslow, W. K., and Raistrick, H., bio-chemistry of micro-organisms. LXVIII. Synthesis of cynodontin (1:4:5:8-tetrahydroxy-2-methylanthraquinone), metabolic product of species of Helmin-

thosporium, II, 49.

Anson, B.J., and Ashley, F.L., midpalmar compartment, associated spaces, and limiting layers, III, 153. Anatomy of region of inguinal hernia. I. Parietal coverings of round ligament of uterus, III, 949.

and Wright, R. R., blood supply of mammary gland, III, 485.

See also Ashley, F. L., Lander, H. H., and Pick, J. W.

Anson, M. L., thiol groups of ovalbumin, II, 235. Lubimenko extracts of chlorophyll-protein, III, 819.

and Stanley, W. M., effects of iodine and other reagents on structure and activity of tobacco mosaic virus, III,

Anspach, H., structure of manganese leonite, I, 229.

Ant, M., diet as prescription in treating disease, III, 592.

Antipov-Karataev, I. N., Sedletzki, I. D., and Jusupova, S. M., utilisation of different methods of peptising clays for study of mineralogical composition of their colloidal fractions, I, 184.

Antonoff, G., Hecht, M., and Chanin, M. N., equilibria in phenol-water systems, I, 336.

Antopol, W., Lehr, D., Churg, J., and

Sprinz, II., changes in urinary tract and other organs after administration of three sulphanilamide derivatives, III,

Sec also Lehr, D.

Aoki, C., phosphate changes in sciatic nerve of rabbit after cutting, III, 852. Aoki, H., diagnosis of amobiasis, III, 625. Aoki, Hiroo. Sec Kikuchi, S.

Aomi, N. See Kimata, S.

Aono, T., reactions between gas and solid. VII. Nitrogenation of calcium carbide and its kinetic discussion. VIII. Mechanism of nitrogenation of calcium carbide, I, 340, 341.

Apin, A., explosive properties of nitrogen trichloride, I, 419.

Leipunski, O., and Reinov, N., decomposition of methyl alcohol at high pressures, II, 25.

Apitz, K., neoplastic nature of leukæmia in man, III, 20.

Appel, M., Saphir, O., and Strauss, A. A., morphological alterations in regressing Brown-Pearce tumour and their relation to changes due to irradiation, III, 589.

Appel, W., and Plügge, H., electrocardiographic changes in diphtheria, III, 79. Appelbaum, E. See Neal, J. B. Appelbaum, M., and Patterson, M., effect

of bile on bacteriophage phenomenon, III, 145. Appenin, I. I. See Rotinian, A. L.

Apperly, F. L. See Fisher, R. S. Applebaum, H. S. See Berger, S. S. Appleton, D. B., and Selwood, P. W., fractional partition of rare earths, I, Arakawa, II., vertical shift of mesoformation layer, I, 70.

Araki, Z. See Yamaha, G.

Arana, G. B., and Schlossberg, R., experimental pulmonary surgery, III, 656. Arasimovitsch, V. V., behaviour of in-

vertase from Cucurbitæ, III, 624. Arata, Y. See Asano, M.

Aravamudachari, S. See Rao, S. R. Arbusov, B., and Nikanorov, K., reaction of naphthazarin with hexadiene and piperylene, II, 68.

Arbuzov, A. E., and Valitova, F. G., alkylpyrocatechol esters of phosphorous

acid, II, 194.

Arbuzov, K. N., foam stability: effect of acids on syncresis of saponin foam; foam produced in aqueous extract of root of Acanthophyllum paniculatum, Rgl., I, 81, 111.

Arch, A. See Young, R. C.

Archangelski, P. A. See Agte, A. N.

Archer, S. See Simons, J. H. Archer, W. See Fritz, J. C. Archibald, R. McG. See Nicholson, T. F. Archipov, B. N. See Kozlov, V. V.

Arena, A. R., and Schwartz, R., variation in virulence of strains of tubercle bacilli kept in vacuo, III, 231.

Schwartz, R., and Darricarrere, T classification of tubercle bacilli isolated from lymph node punctures in Chile, III, 231.

Arenas, N. See Sammartino, R. Arenberg, H., phonocardiography and its clincial correlation, III, 840.

Arendt, J., and Maslow, L. A., improved visualisation of ureters in intravenous pyelography by new method, III, 17.

Arenson, S. B., lecture demonstrations in general chemistry, I, 133. Arest-Jakubovitsch, R. E. See Tschuchrov,

F. V.

Arieff, A. J. See Sherman, I. C. Arii, K., and Fujita, Sigeru, sorption of

phosgene by active charcoal. I. Sorption isotherm, I, 254.

Arimori, T. See Maekawa, G. Aring, C. D., management of fits in adults, III, 861.

See also Sabin, A. B.
Aristov, B. V. See Voroshcov, N. N.
Aristov, G. E. See Kazarnovski, J. S.

Aristova, Z. I., effect of acetic acid and acetate buffers on structure of aluminium hydroxide sols, I, 11.

Ark, P. A., relation of reducing substances to longevity and virulence of phytopathogenic bacteria, III, 390.

and Hunt, M. L., saprophytes antagonistic to phytopathogenic and other micro-organisms, III, 799.

Arkadiev, V. K., and Penner, D. I., rendering visible and photographing of Hertzian-

wave region, I, 137.

Arkell, W. J., mineral resources of con-

tinental Europe, I, 226.

Arkin, A. M., absolute muscle power; internal kinesiology of muscle, III, 851.

Arkina, R. C. See Fridman, A. P.Armstrong, A. R., and Rae, M. V., chemo-

therapy and experimental gas gangrene, III, 908.

See also Calderwood, H. N.

Armstrong, C., cotton rats and white mice in poliomyclitis research, III, 538.

Armstrong, H. G., medical problems in aviation, III, 656. Surgical treatment of goitre, III, 1002.

Armstrong, H. G., and Heim, J. W., medical problems of high-altitude flying, 111, 174.

Armstrong, J. E., ultrabasic rocks of Fort Fraser map-area (west half), northern B.C., I, 135.

Armstrong, L. C., decomposition and alteration of felspars and spodumene by water, I, 284

Armstrong, S. H., jun. See Cohn, E. J.

Armstrong, T. G., experimental heart
failure in rabbits, III, 8.

Armstrong, W. See Breiter, H.

Armstrong, W. D. See Perry, M. W. Arnsson, J. S. See Lemere, F.

Arnell, J. C., Dacey, J. R., and Coffin, C. C., homogeneous first-order gas reactions. XII. Decomposition of glyoxal tetraacetate, I, 118.

Arnett, J. H., incidence of Entamæba histolytica infestation in Philadelphia; its treatment, III, 614. Vital capacity of lungs in middle age, III, 980.

Arnold, A., and Elvehjem, C. A., relation of vitamin-B complex to nutrition of

domestic animals, III, 24.

Schreffer, C. B., and Lipsius, S. T., chemical determination of nicotinie acid, II, 116.

See also Anderson, H. D.

Arnold, C. R., germicidal properties of sodium hydroxide and effect of acidity on growth of yeasts, III, 707.

Arnold, F. A., and McClure, F. L., L. acidophilus and saliva chemistry in dental caries, III, 1069.

Sec also Dean, H.  $\hat{T}$ .

Arnold, H. L., jun., urticaria solaris, III, 620.
Arnold, R. T., Klug, H., Sprung, J., and
Zaugg, H. E., polymorphic forms of substituted phenols, II, 193.

and Zaugg, H. E., Mills-Nixon effect.

II., II, 261.

Zaugg, H. E., and Sprung, J., Reimer-Tiemann reaction of tetrahydro-βnaphthol, II, 256.

Arnow, L. E., and Opsahl, J. C., racemisation of glutamic acid with alkalis, II,

Aron, J. B. See Rehbinder, P.

Aronoff, S., structural interpretations of flavone spectra, I, 72. Aronovsky, S. I. See Clark, T. F.

Aronson, H. G., component of gall-stones insoluble in ordinary solvent and accounting in part for their dark coloration, III, 108.

Arreghini, E. See Rollier, M. A. Arrigoni, L. See Tozer, G. A. Arroyo, A. See Cope, A. C.

Arthur, P., and Nickolls, C. L., distilling column head, I, 391.

Arthur, R. D. See Goodman, M. H.

Artom, C., phospholipin metabolism in denervated muscles, III, 688. Kephalins, choline-containing phospholipins, and total phospholipins in normal human plasma, III, 731.

Artzichovskaja, E. V. See Rubin, B. A. Arvanitaki, A., electric response produced by passage of wave through differentiated part of conducting axon, III, 177. Transmission of electric stimulus between contiguous axons, III, 177. Latent period of transmission across experimental synapse, III, 253. Arx, E. von. See Reichstein, T.

Asagoe, K., Shimokawa, Y., and Kageyama, S., near ultra-violet absorption spectra of benzene and its derivatives. III. Phenol. I, 446.

Asai, T. See Sakaguchi, K. Asami, K. See Fujikawa, F.

Asano, M., and Arata, Y., constituents of Xanthoria fallax (Hepp.), Arn., II, 299.

and Hase, Z., hydroxyquinones. IV. Synthesis of dihydroxy-2-alkyl-p-benzoquinones. V. Synthesis of benzoquinones. V. Synthesis of phthiocol, pigment of the tubercle bacillus, II, 325, 326.

and Kameda, Y., [with Naruse, T.], constitution of spiculisporic acid, a metabolic product of mold fungus Penicillium spiculisporum (Lehman), II, 312.

and Takahashi, H., hydroxyquinones. VI. Synthesis of dihydroxydialkyl-

benzoquinones, II, 326. and Yamaguti, K., hydroxyquinones. III. Constitution and synthesis of rapanone, the anthelmintic principle of Rapanca maximowiczii, Koidz., II,

Aschaffenburg, R. See Waller, H.

Ascher, K. W., partial coloboma of sclerallimbus zone with visible Schlemm's canal, III, 863.

Ascher, M. S. See Waldbott, G. L.

Asdell, S. A., Hamilton, W. J., and Hummel, K. P., hermaphroditism in field mouse, III, 952.

Asenjo, C. F., constituents of tuber of coqui" (Cyperus rotundus, L.). I. Preliminary examination of tuber and composition of fatty oil, III, 945.

Ashbnry, H. H., ointment for relief of discomfort due to severe irradiation epidermitis, III, 914.

Ashcraft, E. B., electrochemical methods in microchemistry, I, 57.

Ashcroft, L. S., and Lemar, A. H., apparatus for "breaking down" vaccines, III, 1076.

Asher, L., and Dirr, C. T., trophic influence of sympathetic on tissues, especially bone, III, 997.

and Scheinfinkel, N., regulatory influence of sympathetic on brain centres [in rabbits], III, 997.

and Sokol, J. K., bacterial localisation in kidneys, III, 585.

Asherson, N., cochlear nerve and vascular theory of nerve deafness, III, 347.

Ashizawa, C. See Ikeda, T. Ashley, F. L., and Anson, B. J., parietal coverings and related structures in indirect inguinal hernia in male, III,

See also Anson, B. J.

Ashley, J. D., congenital atresia of œsophagus with tracheo-œsophageal fistula, III, 875.

Ashley, R. W. See Campbell, A. N. Ashley-Montagu, M. F., palpation and location of nasion in living, III, 240.

Ashworth, C. T., and Tigertt, W. D., determining relative blood volume changes by specific gravity studies, III,

and Wallace, S. A., unusual locations of carcinoid tumours, III, 1030.

Ashworth, J. R., ultra-violet rays and their variations, III, 1058.

Asmaev, P. G. See Smirnov, A. I. Asmuss, F., breadth of 2537 A. mercury

line in under-water-spark spectrum, I, 21. Asmussen, E., Wilson, J. W., and Dill, D. B., hormonal influences on carbohydrate metabolism during work, 111, 900.

Aspelund, H., action of a-halogenated fatty acid chlorides and esters on [substituted] carbamides, II, 151. [Action of] esters of [a]hydroxy-acids on [substituted] carbamides, II, 151.

Aspinall, S. R., ethylenediamine. IV.

Monoalkyl derivatives, II, 161.

Asprey, G. F., and Bond, G., respiration of leguminous root nodules, III, 938.

Ass, T. V., Putilin, N. J., and Raevskaja, L. N., heat of swelling of gelatin in relation to  $p_{\mathbb{H}}$  of the medium. I. and II.,

Astbury, W. T., proteins, II, 274. and Bell, F. O., nature of intramolecular fold in a-keratin and a-myosin, II, 343.

and Dickinson, S., molecular structure of myosin, II, 56.

and Hanes, C. S., X-ray comparison of

natural and synthetic starch, II, 60. Aston, J. G., and Greenburg, R. B., sec.alkyl a-bromo-ketones. I. Reaction with sodium alkoxides; synthesis of tert, acids by rearrangement, II, 4.

Kennedy, R. M., and Messerly, G. H., heat capacity and entropy, heats of fusion and vaporisation, and vapour pressure of silicon tetramethyl, I, 457.

See also Greenburg, R. B., and Kennedy,

Aston, V. G., Schumann, S. C., Fink, H. L., and Doty, P. M., structure of alieyelic compounds, I, 365.

Astrachan, G. D. See MacKee, G. M. Astrowe, P. S., and Palmerton, E. S. [with Henderson, V.], vitamin-K [therapy] in newborn infants, III, 834.

Astwood, E. B., regulation of corpus luteum function by hypophyseal luteotropin, III, 352.

and Jones, G. E. S., determination of pregnancdiol in human urine, III, 356.

Asundi, R. K., comet-tail band, I, 362. Bands in triplet carbon system [of CO],

Karim, S. M., and Samuel, R., continuous emission spectra associated with electric discharges through flowing vapours of SnCl<sub>2</sub>, SnCl<sub>4</sub>, and SiCl<sub>4</sub>, I, 445. Atanasoff, J. V., and Hart, P. J., dynamical

determination of elastic constants and their temperature coefficients for quartz, I, 105.

and Kammer,  $E_{\bullet}$ ,  $c_{44}$  elastic constant for β-quartz, I, 105.

Atherton, D., and Hilditch, T. P., migration of acyl groups during hydrogenation of triglycerides, II, 348.

Atkin, L. See Schultz, A. S. Atkins, H. J. B., sex hormones in chronic

mastitis, III, 198.
Atkinson, A. J., Ivy, A. C., and Bass, V., effect of histaminase on gastric secre-

tory response to histamine, 111, 876. See also Adler, H. F., Berman, A. L., and Fauley, G. B.

Atkinson, E. R., Lawler, H. J., Heath, J. C., Kimball, E. H., and Read, E. R., preparation of symmetrical diaryls by action of reducing agents on diazotised amines, II, 170.

Atkinson, F. R. B., erythroblastic anæmia. III, 164.

Atkinson, M., drugs in Ménière's disease, III, 751. Changes in vestibular sensitivity in Ménière's syndrome and their significance, III, 752.

Atkinson, W. J., Dean, J. L., Kennerdell, E. H., and Lambertsen, C. J., multiple anomaly of human heart and pulmonary veins, III, 238.

Atlas, L. N., lumbar sympathectomy for denervating blood vessels of leg and foot,

III. 89.

Atsuki, K., and Takata, T., spectrochemical researches on xanthates. I. Alkyl xanthates and ethylthioxanthate. II. By-products of xanthation and viscose, 1, 398.

Attinger, E., pathology of auricular rhythm and of P-wave, 111, 78.

Attwood, A. M. P. See Macfarlane, R. G. Atwell, W. J., morphology of hypophysis cerebri of toads, III, 637.

Atwood, K., and Rollefson, G. K., efficiency in primary photochemical process in solution, I, 422.

Aub, J. C. See Bauer, W., Franseen, C. C., Gusberg, S. B., and Nathanson, I. T.

Aubel, C. E., Hughes, J. S., and Peterson, W. J., calcium requirements of growing pigs, III, 890.

Aubertin, E. See Lacoste, A. Auchineloss, R. See Haagensen, C. D. Auchter, E. C., plant research and human welfare, III, 814.

Audrieth, L. F., and Steinman, R., inorganic oxychlorides as hydrogenbonding solvents, 1, 468.

and Toy, A. D. F., aquo-ammono-phosphoric acids. I. Phenyl esters of amino- and diamido-phosphoric acids, II, 359.

Weisiger, J. R., and Carter, H. E., alkylation of phenylhydrazine in liquid ammonia, II, 286.

Audus, L. J., glass apparatus for determining oxygen evolution in photosynthesis of Elodea canadensis, III, 234. Mechanical stimulation and respiration in green leaf, III, 481. and Cheetham, A. H., significance of

ethereal oils in regulating leaf temperatures and transpiration rates [of leaves], III, 58.

Auer, H., and Schröder, H., "re-formation" process in study of changes of state in metals [alloys], I, 79.

Auer, M. L. See Morgan, J. H. Auerbach, C., tests for carcinogenic substances in relation to production of mutations in Drosophila melanogaster, III, 4. Effect of sex on spontaneous mutation rate in Drosophila melanogaster, III, 240.

Sec also Crew, F. A. E.

Aufdemgarten, H., carbon dioxide assimilation [of algæ], III, 817.

Auger, W. H., laboratory investigation of

pneumonia among infants and children. III, 628.

Auger, W. J., sulphapyridine resistance of pneumococci following sulphapyridine therapy in infants and children; comparative potency of three chemotherapeutic agents for pueumococci as shown by laboratory tests, III, 692. See also Silverthorne, N.

Augustine, D. L., blood-sugar values and tolerance for glucose in trichinosis, 111,

Auler, H., and Hohenadel, B., mice ascites carcinoma transplantations. III., III.

Ault, G. W., rectal malformation, III, 106. Aumann, K. W. See Youmans, W. B. Aurivillius, B. See Sillén, L. G.

Ausbüttel, F., action of bile on living tissue, III, 447.

Austin, C. R., and Samans, C. H., metallography and physical properties of alloys of cobalt, iron, and titanium, I, 164.

Austin, J. A. See Brown, H. P. Auten, H. L. See Walker, S. Avakian, S. See Burger, A.

Avery, G. S., jun., Creighton, H. B., and Shalucha, B., extraction methods in relation to hormone content of maize endosperms, III, 60.

Avila, W. See Randall, M. Avina, Z. M. See Jermolenko, N. F. Avinery-Shapiro, S. See Leibowitz, J.

Avrami, M., phase change. III. Granulation, phase change, and microstructure, I, 151.

Awbery, J. H., latent heats of fusion of organic refrigerants, I, 160.

Awe, W., insulin and vitamin- $B_1$ , III, 25.

Axe, W. N. See Glenn, R. A.
Axelrod, A. E., Spies, T. D., and Elvehjem, C. A., effect of nicotinic acid deficiency on co-enzyme I content of human erythrocyte and muscle, III, 535.

Spies, T. D., Elvehjem, C. A., and Axelrod, V., urinary riboflavin excretion in man, III, 893.

Swingle, K. F., and Elvehjem, C. A.,

stimulatory effect of calcium on succinic oxidase of fresh rat tissues, III, 1061.

See also Wagner, J. R.

Axelrod, V. See Axelrod, A. E.

Axelson, G. J. See Hamblen, E. C.

Axtmayer, J. H. See Krakower, C.

Aycock, W. L., familial susceptibility to

leprosy, III, 537.

Ayer, A. A., iliaeus minor muscle in Indian langur, Semnopithecus entellus, III, 318. Ayestaran, D. See Lora Tamayo, W.

Aykroyd, O. E., effects of ultracentrifuging

human oocytes, III, 358. and Gatenby, J. B., cytology of human uterine glands in gravid and non-gravid phases, III, 722.

See also Gatenby, J. B. Aykroyd, W. K., and Krishnan, B. G., infantile mortality and beriberi, III, 596. Ayling, E. E., Gorvin, J. H., and Hinkel, L, p-aminodimethylaniline. Properties of its diazonium compounds, II, 359.

Aylward, F. X., Grieve, W. S. M., Mainwaring, B. R. S., and Wilkinson, J. F., hæmopoietic activity of mammalian livers, III, 827.

Mainwaring, B. R. S., and Wilkinson, J. F., concentration and drying of plasma, III, 245.

See also Mainwaring, B. R. S.

Ayman,  $D_{\cdot,\cdot}$  and Goldshine, A.  $D_{\cdot,\cdot}$  blood pressure determinations on patients with essential hypertension; difference between home and clinic readings during

and after treatment, III, 80, 338.

Ayre, J. E., rôle of corpus luteum in toxemia of pregnancy, III, 677. Prevention of pulmonary embolism, III, 977.

Azarch, R. M. See Braunstein, A. E.

Azatian, V. D. See Petrov, A. D.

Aziz, J. A. See Mukerji, S. K.

Baar, H. S., and Hickmans, E. M., alkali denaturation of hæmoglobin derivatives. III, 962. Bilirubinoid pigments of human fæces, III, 1018.

Baatz, I. See Mothes, K.

Baba, Shinichiro, determination of iron, I, 281.

Baba, Sigetaka, influence of cervico-thoracic ganglionectomy and cervical vagotomy on phagocytic cells in lungs of rabbits. I. and II., Ill, 563.

See also Hayashi, S.

Baba, T., fermentation of dextrin by yeasts. I., Ill, 706.

Babajan, A. T., synthesis of asymmetrical acetylenic y-glycols. I. and II., II, 26, 238.

Babakina, V. G., and Zamislov, A. D., enzymic preparations from Aspergillus oryzae, III, 623.

Babbitt, J.A., and Silcox, L.E., otosclerosis [and its treatment], III, 750.

Babbitt, J. D., diffusion of water vapour through a slit in an impermeable membrane, I, 201.

Babcock, D. E., test for straight-line relationships, I, 133.
Babcock, S. H. See Spies, T. D.

Babers, F. H., glycogen in Prodenia eridania, with special reference to ingestion of glucose, III, 901.

Babin, J. A., oxidation of amino-acids by

peroxidase, III, 622.
Babitsch, M. M., Kisljakova, E. N., and Umanski, J. S., structure of intermetallic phases in system tungsten-cobalt and molybdenum-cobalt. III., I, 164.

Babkin, B. P., effect of parathyroid hormone and irradiated ergosterol on

gastric secretion in dog, III, 1013. Babkin, M. P. See Voinar, A. O.

Babko, A. K., complex halides of copper and bismuth, I, 46.

Babkova, M., and Motschan, I., adsorptive properties of promoted and inactive tungsten layers, I, 254.

Babson, S. G., renal glycosuria, III, 365. Bach, A. C., Imerman, H. M., and Kerns, J. K., giant colon in adult psychotic patient, III, 513.

Bach, E., inhibition of oxidation of ascorbic acid by mustard oil, III, 522.

Bach, J. M., identification of small quantities of vanadium; sensitivity of method of Montequi and Gallego, I, 88. and Trelles, R. A., determination of vanadium in water, I, 89.

Bach, N., electrokinetic behaviour of

carbon, I, 413.
Bach, T. F. See Spackman, E. W.

Bacharach, A. L., distribution of nicotinic acid in human and animal foods, III, 210, 519. Carotene and human

requirements, III, 593. and Chance, M. R. A., cestrogenic inactivity of dl-a-tocopherol acetate, III, 288

Chance, M. R. A., and Middleton, T. R., biological assay of testicular diffusing factor, III, 102.

Bachem, A., genesis of absolute pitch, III, 261.

Bacher, F. A. See Trenner, N. R. Bacher, J. A., jun. See Schulte, J. W. Bacher, R. F. See Baker, C. P. Bachinski, W. M. See Morrell, C. A.

Bachman, C., Leekley, D., and Hirschmann, H., excretion of sodium pregnanediol glucuronidate in urine of normal human pregnancy, III, 195. and Pettit, D. S., photometric deter-

mination of estrogens. III. Determination of œstrogens of pregnancy urine, III, 577.

Bachmann, G., splitting of P wave in electrocardiogram, III, 841.

Haldi, J., Wynn, W., and Ensor, C., effects produced by decreasing calcium and phosphorus intake on calcium and phosphorus absorption and deposition and on body constituents of the rat, III, 22.

See also Haldi, J.

Bachmann, G. B., and Hoaglin, R. I.,
9.n-propyl- and 9-n-butyl-phenantbrene, II, Ī27.

Bachmann, W. E., and Chemerda, J. M., synthesis of 7:9:10- and 8:9:10-trimethyl-1:2-benzanthracene, II, 127. Synthesis of 4- and 5-methylcholanthrene, II, 128.

and Edgerton, R. O., synthesis of 3:4benzphenanthrene and 1-methylpyrene,

II, 218.

and Holmes, D. W., synthesis of 6hydroxy-17-equilenone (an isomeride of equilenin) and two of its homologues, II, 17. Synthesis of compounds related to sex hormones; a homologue of equilenin containing an ang. ethyl

group, II, 138. and Safir, S. R., 7-methylcholanthrene and 5:1'-dimethyl-1:2-benzanthracene,

and Sheehan, J. C., synthesis of 2-, 4-, and 9-fluorenylacetic acid, II, 12. Synthesis of 4:5-methylenephenanthrene, II, 91.

and Struve, W. S., synthesis of cis- and trans-1-methylcyclopentane-1:2-dicarboxylic acids and related com-

pounds, II, 255.

and Thomas, D. G., synthesis of analogues of sex hormones; an analogue of equilenin lacking the phenolic A ring, II, 138.

Bachrach, W. H. See Davis, M. W., and Slive, A.

Back, S. See Waldmann, H.

Backus, G. R., and Griffin, E. P., jun., primary chorionepithelioma of ovary, III, 762.

Bacon, J. A. See Wood, J. H.
Bacon, R. H., Grisewood, E. N., and
Merwe, C. W. van der, radioactivity of 56Mn and 128I, I, 287.

Bacq, Z. M., and Goffart, M., use of potassium ions in muscular contraction studies, III, 426. Lundsgaard [iodoacetic acid poisoning] effect produced by vesicants in frog muscle, III, 426.

Baesich, P., and Wyburn, G. M., cyclic variations in vascular architecture of uterus of guinea-pig, III, 320.

Baddar, F. G., benzanthrones. IV. Synthesis of o-2'- and o-4'-methyl-1'-naphthylbenzoic acid; conversion of benz-fluorenones into benzanthrones, II, 257.

Bade, H. See Rienäcker, G.

Badenhuizen, N. P., colchicine-induced tetraploids obtained from plants of economic value, III, 481. Structure of starch grain, III, 1085.

Badger, A. E., and Doney, L. M., glass melts in systems zirconia-aluminasilica and titania-alumina-silica, I, 163.

Badger, E. See Tashiro, S. Badger, G. F. See Top, F. H.

Badger, G. M., derivatives of o-1-naphthoylbenzoio acid and 1-benzylnaphthalene-2'-carboxylic acid, II, 247. Synthesis of growth-inhibitory polycyclic compounds, III., II, 357.

Badger, G. M., Cook, J. W., Hewett, C. L., Kennaway, E. L., Kennaway, N. M., Martin, R. H., and Robinson, A. M., production of cancer by pure hydrocarbons. V., III, 111.

Goulden, F., and Warren, F. L., polycyclic aromatic hydrocarbons. XXVII.

IÌ, 91.

Badham, C., and Taylor, H. B., lungs of coal miners in Now South Wales, III, 1057.

Badinand, A., hepatic and tumour cathensin in cancerous animals, III, 516.

Bäcklund, B., a-tert.-butylsulphonylpro-pionic acid and its mono-bromoderivative, II, 59.

Baehr, G., control of syphilis by intravenous drip technique of massive arsenotherapy, III, 382.

See also Bierman, W.

Baer, E., and Fischer, H. O. L., acctone-[isopropylidene-]glyceraldehyde optically active glycerides. IX. Configuration of natural batyl, chimyl, and selachyl alcohols, II, 311.

Baer, J. L., examination of adolescent female, III, 1009.

Baer, M., vitamin-E treatment of otosclerosis, III, 1001.

Baer, R. L. See Schwartz, Louis, and Winer, N. J.

Baernstein, H. D., and Grand, J. A., effect of lead acetate on oxygen uptake of rat liver slices, III, 780. Baeza-Herrera, H. See Lipschütz, A.

Baeza-Rosales, H. See Lipschütz, A.

Bagchi, H., geometrical note on van der Waals' equation, I, 35.

Bagdasarjantz, G. J., changes in phosphorus fraction and creatine of rabbit muscles in ontogenesis, III, 739.

Baggenstoss, A. H., and Keith, H. M., calcification of arteries of infant, III,

and Rosenberg, E. F., heart lesions in infectious arthritis, III, 495.

See also Keith, H. M.

Bahl, R. K., and Lal, M., interaction between potassium metaperiodate and soluble salts of metals of alkaline earths, I, 55.

and Singh, S., ternary system potassium nitrate-ammonium nitrate-water at 25°, I, 15. Action of chlorine on hydroxides of alkaline earths in presence of iodine. II., I, 56.

Bahr, G. von, herpes zoster, varicella, and sympathetic ophthalmia, III, 9.

Bai, K. S., depolarisation of light scattered by liquids, 1, 399.

Baibaev, A. I., preparation of pure water, I, 123. Stability of lyophobic colloids, I, 259.

Bailey, A.J., 60-plate low-hold-up laboratory fractionating column, I, 433.

Bailey, C. R., breaking strength of lyogels, I, 209. Instrument for rheological studies of plastic substances, I, 283.

Bailey, F. M. See Fox, G. W. Bailey, G. H., and Gardner, R. E., tissue specificity of brain and medullated nerves as shown by passive anaphylaxis

in guinea-pigs, III, 567. and Raffel, S., organ and speciesspecificity of broths in passive anaphyl-

axis, III, 1079.

Bailey, H., ether convulsions, III, 128.

Bailey, H. W. See Shepherd, M. Bailey, J. R. See Glenn, R. A., and Schenck, L. M.

Bailey, K. C., and Hickson, W. S. E., formation of trichloroacetic acid from perehlorethylene by atmospheric oxidation, II, 158.

Bailey, M. E., and Hass, H. B., resolution of enantiomorphs. I. Rectification, II, 278.

Bailey, P., and Haynes, W., location of inhibitory respiratory centre in cerebral cortex of dog, III, 255.

Bailey, R. L., jun. See Stewart, H. J. Bailey, U. M. See MacKeith, R.

Bailey, W. A., jun. See McAllister, S. H. Bailly, J. See Remlinger, P.

Bair, G. See Fineman, A. H. Bair, H. L. See Steffens, L. C.

Baird, K. A., allergic reaction to stilbæstrol. III, 509.

Bajpai, R. R., and Vaidhianathan, V. I., preparation of quartz ultrasonic oscillators, I, 432.

Baker, A. B., structure of small cerebral arteries in hypertension, III, 337. Vitamin- $B_6$  in paralysis agitans, III, 988.

See also Bieter, R. N., and Diehl, H. S.

Baker, A. H., and Finn, S. R., hydration of carbon dioxide and its influence on germicidal activity of hypochlorite aërosols, III, 306.

See also Twort, C. C.

Baker, A. H. L., endobronchial lipiodol under general anæsthesia in children, III, 848.

and Chivers, E. M., opium derivatives as preanæsthetic sedative, III, 465. Baker, B. R. See Adams, R. Baker, C. P., and Bacher, R. F., slow

neutron velocity spectrometer, I, 187.

Baker, D. L. See Knoll, A. Baker, E. G. S., and Baumberger, J. P., respiratory rate and cytochrome content of a ciliate protozoan, Tetrahymena geleii, III, 799.

Baker, F., and Martin, R., iodophile microflora of rabbit cæcum, and dis-integration of cell-wall substances, III, 200.

Baker, F. S., density of cell sap in redwood, 111, 397.

Baker, G., cordierite granite from Terip Terip, Victoria, I, 352.

Baker, L. D., chemotherapy and antitoxin in acute osteomyelitis with staphylococcal septicæmia, III, 906. See also McBryde, A.

Baker, R. F. See Cole, K. S.

Baker, R. H., and Adkins, H., oxidation potentials of ketones and an aldehyde, Ĩ, 117.

Baker, W. O., Fuller, C. S., and Heiss, J. H., jun., macromoleeular properties of linear polyesters: mol. wt. of ω-hydroxyundecoic self-polyesters, I, 466.

See also Fuller, C. S.

Balaev, V. A., Devonian and crystalline rocks in western regions of the Bashkir A.S.S.R., I, 227.

Balamuth, W., regeneration in protozoa,

III, 67.

Balandin, A. A., chemistry and structure. II., I, 244. Heterogeneous catalysis; dehydrogenation reactions, I, 341. Olistomerism, I, 342.

and Bork, A., relative life periods of ethyl alcohol and acetaldehyde molecules on surface of a copper catalyst, I, 52.

Balandin, A. A., and Fedorov, V. S., catalytic dehydrogenation of cyclopentane in presence of chromic oxide. I, 273.

Grigorian, E. S., and Janischeva, Z. S., thermal decomposition of nickel for-

mate, I, 51.

and Liberman, A. L., dehydrogenation of sec .- butyl alcohol and reversible poisoning of copper catalysts, I, 215. Free radicals in pyrolysis and electrical discharge, II, 25.

and Livanova, O., catalytic addition of hydrogen chloride to ethylene, I, 52.

Maruschkin, M., and Konnikov, B. I., orientation of molecules of secondary during alcohols dehydrogenation catalysis, I, 53.

and Nesvishski, M., catalytic preparation of ethyl alcohol by hydration of

ethylene, II, 25.

and Titova, A., catalytic reduction of p-chloronitrobenzene, II, 38.

Zelinski, N. D., Marukian, G. M., and Bogdanova, O. K., preparation of styrene by catalytic dehydrogenation of ethylbenzene, II, 355.

See also Freidlin, L. C. Balarev, D., inner adsorption in salt crystal systems. VII., I, 279.

and Kolarov, N., crystal growth. II., I,

Balassa, G., uterine potentials, III, 196. and Gurd, M. R., action of adrenaline and potential changes in cat uterus, III, 674.

Baldes, E. J. See Hausner, E. Baldi, B. See De Dlesbach, H.

Baldwin, E. See Bell, D. J.
Baldwin, F. M., and Goldin, H. S., effect of testosterone propionate on anal fin transformation of female viviparous

telcost, Xiphophorus helleri, III, 760.

Baldwin, I. L. See Van Lanen, J. M.

Baldwin, M. See Kropp, B.

Bale, W. F., use of artificially produced radioactive elements as tagged atoms in biological research, III, 33. Sec also Manery, J. F.

Balfe, M. P., Irwin, M., and Kenyon, J., complex rotatory dispersion of optically active tetrahydrofuryl-2-carbinol, I, 74. Optically active tetrahydrofur-furyl alcohol, II, 231. and Kenyon, J., reactions of carboxylic

esters, II, 347.

and Nandi, K. N., oxidation of alkyl tellurides, II, 118.

Balian, S. V., if- and sf-nomograms for

system benzene-water vapour, I, 370.

Ball, E. G., Tucker, H. F., Solomon, A. K.,
and Vennesland, B., source of pancreatic juice bicarbonate, III, 879. See also Tucker, H. F. Ball, H. A. See Samuels, L. T.

Ball, J., frequent failure of single insemination to activate corpora lutea of rat sufficiently for implantation of fertilised ova, III, 762. Mating behaviour induced in hypophysectomised female rats by injected estrogen, III, 872.

Ball, R. P., and Crump, A. C., case of cardiospasm with subdiaphragmatic herniation of œsophagus, III, 876.

Ballantyne, A.J., histological interpretation of appearances in fundus oculi, III, 999. Ballard, S. S., spectrographic study of mineral elements in sugar cane, III,

1084. See also Payne, J. II. Ballentine, R. See Chakravorty, P. N. Ballinger, J., hypoglycamia from metastasising insular carcinoma of aberrant pancreatic tissue in liver, III, 868.

See also Saphir, O.
Ballion, M. See Dubois, A.

Ballou, G. A., and Luck, J. M., effects of different buffers on activity of β-amylase, III, 623.

Balls, A. K. Sec Jansen, E. F.

Ballweg, H. See Buchanan, J. A. Balson, E. W. See Adam, N. K. Balthasar, K., lesions of globus pallidus in athetosis and paraballism, III, 987.

Baltzer, O. J. Sec Jauncey, G. E. M. Baltzly, R., and Buck, J. S., 2-methyl-1:4-

naphthaquinol hydrogen succinate, II, 167.

See also Buck, J. S.

Bambaeh, K., and Cholak, J., electrolytic deposition of lead from biological material, III, 948.

See also Cholak, J.

Bamford, C. H., and Barber, H., blindness follows hæmatemesis, III, 259. See also Bamford, D. A.

Bamford, D. A., and Bamford, C. H., photolysis of organic nitrogen compounds. III. Methyl isocyanate, I, 122. Bancroft, D. See Birch, F. Band, W. See Che'ng, C., Feng, S. K.,

and Hsü, H. Bandier, E., determination of nicotinic acid

in biological material, III, 118.

Bandoni, A. J., determination of cyanogenetic glucosides, III, 62.

Banerjee, D. K., synthetic investigations on degradation products of bile acids, sex hormones, etc. I. Synthesis of 7-methyldicyclo-[0:3:3]-octan-1-one. II. Synthesis of ketodeoxyœstric acid, II,

16. See also Chatterjee, S. D.

Banerjee, K., and Ganguly, M., structure of m-dinitrobenzene by Patterson Fourier summation, I, 7.

Banerjee, Sachchidananda, ascorbic acid in human urine, III, 109. Banerjee, Santilal. See Krishnan, K. S.

Banet, L. See Ehrenhaft, F.

Banfield, W. G. See Hunter, F. R. Bang, B. See Bang, F. B.

Bang, F. B., and Bang, B., sulphanilamide, sulphapyridine, and sulphathiazole therapy of gonococcal infection of chorioallantoic membrane, III, 1043.

Banga, I., and Szent-Györgyi, A., structureproteins, III, 681.

See also Szent-Györgyi, A.
Bank, O., and De Jong, H. G. B., metachromasia, III, 69.

Banks, C. K., and Hamilton, C. S., 4-amino-2-hydroxyphenylarsine oxide and related oxides, II, 273.

Banks, F. R., self-diffusion in zinc, I,

Banks, H. S., sulphathiazole in cerebrospinal fever, III, 460.

Banks, J. See Martin, C. P.

Banks, T. E. See Krishnan, R. S.
Bannister, F. A., crystal structure of violarite, I, 228. Osbornite, meteoritic titanium nitride, I, 308.

Bannister, M. See Donovan, G. E. Bannon, R. E. See Ogle, K. N.

Baños, A., jun. See Schremp, E.J. Bansi, H. W., pathogenesis of obesity, III,

Banus, M. G., saturated calomel electrode, I, 390.

Banzer, G., influence of climate on growth of tumours, III, 19.

Baptist, M. See Cuyler, W. K.

Barach, A. L., oxygen-want in pilots flying at 12,000 feet altitudes, III, 848.

and Steiner, A., effect of inhalation of high oxygen concentrations, with and without carbon dioxide, on electro-cardiogram, III, 559.

Barach, J. H., symptomatology of diabetes, III, 783.

Baranaev, M. K., and Schurupova, V. K., vapour pressure of solid phenol, I,

See also Skljarenko,  $S.\ I.$  Baranov,  $V.\ I.$  See Salkind,  $J.\ S.$ 

Baranovski, T., crystallisation of albumin from human and rabbit sera, III, 418. Crystalline myogen, III, 739. See also Chrobak, L.

Barber, C. See Damboviceanu, A. Barber, H. See Bamford, C. H.

Barber, H. H., separation of calcium nitrate glycol monobutyl ether [butyl cellosolve], 1, 483.

Barber, H. N., and Price, J. R., Feulgen reaction with nucleic acid, III, 316.

Barbier, H., products of oxidation of 1:1:4trimethylcycloheptene, II, 61. 3:3:5-Trimethylcyclohexenylformaldehyde, II,

Barbier, P. Sec Schiff-Wertheimer.

Barbilian, N., and Repeiuc, E., heterotopic calcification [in thyroid goitre], III,

Barborka, C. J. See Friedemann, T. E. Barbrow, L. E., photometric procedure using barrier-layer photo-cells, I, 222.

Barclay, I. M., Campbell, N., and Dodds, G., structure of nitroindazoles and their

N-methyl derivatives, II, 150. Barclay, R. W. See Hurd, C. B. Barcroft, J., phases of birth, III, 1013. Bard, P. See Marshall, W. H.

Bardeen, J., image and van der Waals forces at a metallic surface, I, 30. Electrical

conductivity of metals, I, 151. Barenberg, L. H., Greene, D., and Greenspan, L., congenital megacolon [Hirschsprung's disease], III, S81.

See also Greene, D., and Lewis, J. M. Barer, A. P., and Fowler, W. M., effect of iron on phosphorus, calcium, and nitrogen metabolism, III, 213. Comparison of hæmoglobin response to varying dosages of iron, III, 830.

See also Fowler, W. M.

Bargen, J. A., Wesson, H. R., and Jackman, R. J., ileocæcal junction, III, 582.

See also Coffey, R.J.Barger, A.N., and Johnson, R.E.anaërobic glycogenolysis in muscles of Rana pipiens at low temperatures, III,

See also Johnson, R. E.

Bariéty, M. See Troisier, J.

Baril, O. L., preparation of chloroform, II, 117.

Barischev, A. I. See Voroshcov, N. N. Barkas, W. H. See Creutz, E. C., and Delsasso, L. A.
Barkenbus, C. Sec Wyman, F. W.

Barker, C. C., Hirst, E. L., and Young, G. T., linking between repeating units in starch molecule, II, 121.

Barker, C. S., congenital aplasia of costal cartilages, III, 951. Barker, D. See Fritz, J. C.

Barker, E. F. See Wu, (Miss) V. L.

Barker, H. A., production of hexoic and butyric acid by methane fermentation of ethyl alcohol, III, 50. Methane fermentation. V. Biochemical activities of Methanobacterium omelianskii, III, 307.

See also Carson, S. F.

Barker, M. H. See Davis, L.
Barker, N. W., Nygaard, K. K., Walters,
W., and Priestley, J. T., postoperative venous thrombosis and pulmonary embolism, III, 336.

and Walters, W., hypertension and chronic atrophic pyelonephritis, III,

See also Hines, E. A., jun., Kennedy,

R. L. J., and Priestley, J. T.

Barker, S. B., acetaldehyde in mammalian red blood cells, III, 415.

and Summerson, W. H., colorimetric determination of lactic acid in biological material, III, 543.

Barksdale, E. E., arsenical dermatitis from tobacco, III, 220.

Barlee, J. S. See Dixon, H. H. Barlow, O. W., and Climenko, D. R., pharmacology of sulphapyridine and sulphathiazole, III, 459. and Renselaer, E. H., influence of

histaminase on course of anaphylaxis and histamine shock in guinea-pigs, III, 1079.

and Sprague, K. D., comparative biological responses to international standard and commercial chorionic gonadotropins, III, 360.

See also Climenko, D. R.

Barman, J. M., sensitivity of rabbits to gonadotropic effect of pregnancy urine. 1. Thyroid, estrone, and progesterone. II. Effect of male sex hormone. III. Effect of eserine and acetylcholine, III,

Barnard, R. D., parenterally administered liver extract in ophthalmological conditions, III, 89.

Barnard, R. L., experimental changes in end-feet of Held-Auerbach in spinal cord of cat, III, 429.

Barnell, H. R., tropical fruits. XI. Carbohydrate metabolism of banana fruit during ripening, III, 1083.

Barnes, B. See Cornbleet, T.
Barnes, C. A., Cuttle, T. D., and Duncan, G. G., histone zinc insulin in treatment of diabetes mellitus, III, 1050.

Barnes, C. G., electrocardiogram after pneumonectomy, III, 841.

Barnes, D. J. See Smith, A. H. Barnes, E. O., biochemistry of apples, plums, and grapes grown in Minnesota, III, 406.

Barnes, H., determination of small quantities of hydroxylamine by Blom's method.

Barnes, J. M., enzymes of lymphocytes and polymorphonuclear leucocytes, III, 73. Spread of bacteria and toxins from infected wounds, III, 1065.

and Trueta, J., absorption of bacteria, toxins, and snake venoms from tissues, III, 799.

See also Sanders, A. G.

Barnes, L. L., Sperling, G., and Maynard, L. A., bone development in rat on lowmanganese diet, III, 951.

Barnes, R. B., and Burton, C. J., metallic smokes as test objects in electron microscopy, I, 485.

Barnes, R. H., Drury, D. R., Greeley, P. O., and Wick, A. N., utilisation of ketone bodies in normal animals and in those with ketosis, III, 213.

and MacKay, E. M., influence of protamine zinc insulin on appetite during anorexia of vitamin- $B_1$  deficiency, III, 350.

Miller, E. S., and Burr, G. O., adrenals and fat absorption. III, 754. Influence of adrenals on transport of fat into liver, III, 754. Absorption and transport of fatty acids across intestinal mucosa, III, 766. Fat absorption in fatty acid deficiency, III, 1040.

See also MacKay, E. M. Barnes, R. P., and Tulane, V. J., interconversion of mixed benzoins, II, 170.

Barnes, T. C., combined effects of heavy water and adrenaline on rate and action current of excised auricles of turtle, III, 78. Action of sulphanilamide on tissues of cold-blooded vertebrates, III, 213. Modification of electrical potential of frog skin by acetylcholine, III, 909.

Barnes, W. A., and Cole, R. K., effect of nursing on incidence of spontaneous lcukæmia and tumours in mice, III,

1026.

and Furth, J., transmissible malignant neoplasm of mice originating in reticular or endothelial cells, III, 206. See also Furth, J.

Barnett, A., techniques for obtaining electroencephalograms using ocular and intranasal electrodes, III, 856.

Barnett, S. A., and Bourne, G., distribution of ascorbic acid in developing chick embryo, III, 156.

Bourne, G., and Fisher, R. B., silver nitrate for histochemical demonstration of ascorbic acid, III, 550.

Barney, A. L. See Spencer, C. C.

Barney, W. R., treatment of hamorrhagic disease of newborn, III, 834.

Barnicot, N. A., factors involved in bone absorption. I. Effect of subcutaneous transplantation of bones of grey-lethal house mouse into normal hosts and of normal bones into grey-lethal hosts, III,

Barnothy, J., and Forro, M., absorption of cosmic rays in lead at a depth of 1000 m. water equivalent, I, 145. Proper lifetime of mesotrons, I, 396.

Barnum, C. See Kolthoff, I. M. Barnum, C. P. See Mackay, E. M.

Barondes, R. de R., selenium toxicosis; ætiologic or causative factor in pellagra?

Baroody, E. M., directional dependence of electrical conductivity, I, 157.

Barpujari, G. N. See Chatterjee, N. N. Barr, E., Ziegler, W. M., and Connor, R., a-chloro-a-sulphonyl-amides, II, 125.

Barr, E. S., adjustable infra-red absorption cell for liquids, I, 432.

Barr, G., apparatus for measurement of small absorptions or evolutions of gas in a closed system, I, 350.

and Sloman, H. A., nomograms for correction of barometer readings for temperature and gravity, I, 433.

Barr, J. S. See Gall, E. A. Barr, M., Glenny, A. T., Pope, C. G., and Linggood, F. V., preparation of alum-precipitated toxoid, III, 1078.

Barr, M.L., axon reaction in motor neurons and its effect on end-bulbs of Held-Auerbach, III, 87. Barrer, R. M., stationary and non-stationary states of flow of hydrogen in palladium and iron, I, 36. Hydrogen bond, I, 364.

Barrett, C. S., and Geisler, A. H., atomic distribution in aluminium-silver alloys

during ageing, I, 372.

Geisler, A. H., and Mehl, R. F., mechan-ism of precipitation from the solid solution of silver in aluminium, I, 296.

Barrett, H. M., Birnie, A. W., and Cohen, M., adsorption of water vapour on silica surfaces by direct weighing, I, 37.

Barrett, J. W., retinitis pigmentosa, III, 865.

Barrett, M. K., influence of genetic constitution on induction of resistance to transplantable mouse tumours, III, 589.

Barrett, IV. H., composition and properties of shore and dune sands, I, 61.

Barrington, E. J. W., secretin and pancreatic secretion (cat), III, 879.

Barron, D. H., central course of "recurrent" sensory discharges, III, 255. Barron, E. S. G., thiamin and thiol com-

pounds, II, 154. Dick, G. F., and Lyman, C. M., chemistry

of scarlet fever toxin, III, 310.
and Friedemann, T. E., biological oxidations. XIV. Oxidations by

micro-organisms that do not ferment glucose, III, 391. and Lyman, C. M., functions of di-

vitamin- $B_1$ ), III, 209.

Barron, L. E., influence of splanchnic denervation on motility of human stomach, III, 581.

See also Freedberg, A. S.

Barrow, D. H., functional development of mammalian neuromuscular mechanisms, III, 66.

Barrow, R. F., high-temperature positivecolumn discharge tubes, I, 59. Band spectrum of germanous sulphide in emission, I, 147

Barry, A., age changes in pulsation frequency of embryonic chick heart, III, 953. Barry, J. G., regulated battery-operated high voltage supply, I, 223.

Barry, V. C., hydrolysis of laminarin; isolation of a new glucose disaccharide,

and Dillon, T., occurrence of xylans in marine algae, III, 151.

Barsby, B. E., and Bonham-Carter, R. E.diagnosis and conservative treatment of bronchiectasis in children, III, 656

Barschall, II. II., and Kanner, M. H., angular distribution of fast neutrons scattered by hydrogen, deuterium, and helium, I, 2.

See also Wheeler, J. A.

Barstow, J. M., sound measurement objectives and sound level meter performance, III, 435.

Bartell, F. E. See Mack, G. L.

Bartelmez, G. W., menstruation, III, 509. Bartels, E. C., kidney function in hyperthyroidism, III, 752. Hippuric acid liver function test: intravenous method, III. 768.

Bartels, W. E. See Milhorat, A. T.

Barth, E. E. See Becker, R. F., and Windle, W. F.

Barth, L. G., regeneration in hydroids, III, 4.

Bartholomew, W. V., and Norman, A. G. determination of uronic groups in soils and plant materials, III, 948. Bartholomeyczyk, W., and Wolter, E., striking mechanism of long discharge tubes. II. Effect of pre-ionisation on striking, I, 22.

Bartlett, J. H., jun., and Welton, T. A., scattering of fast electrons by heavy elements. II., I, 186.

elements. II., I, 186.
Bartlett, M. K., Jones, C. M., and Ryan, A. E., vitamin-C studies on surgical

patients, III, 120.
Bartlett, P. D., and Brown, R. F., pinacol rearrangement of cis- and trans-7:8diphenylacenaphthene-7:8-diols, 228.

Fraser, G. L., and Woodward, R. B., isolation and properties of aa-dincopentylethylene, a component of triisobutylene, II, 117.

and Gill, J. D., jun., Wagner-Meerwein rearrangement; catalytic action of phenols in the isomerisation of camphene hydrochloride, II, 261.

and Woods, G. F., reactions of  $\Delta^2$ -cyclohexenone; synthesis of dicyclo[2:2:2]octane-2:6-dione, II, 228,

See also Altschul, R., and Wistar, R.

Bartlett, W., jun., variations in alkali reserve of plasma and excretion of total titratable urinary acid in hyperthyroidism, III, 571.

Bartley, S. H. See Bishop, G. H. Barto, L. R., clinical use of staphylococcus

vaccine [in\_dogs], III, 1070.

Barton, F. E., citrate-glucose blood pre-servative, III, 642.

Bartstra, H. K. G., and Zijlstra, R., myopathy with myotonia, myasthenia, and various heredodegenerative lesions, III,

Barua, D. N., and Roberts, E. A. H., volumetric determination of tea tannin in green-leaf and black tea; alkaline permanganate method, III, 152.

Barve, P. M., Vora, V. C., and Desai, B. N., mutual coagulation of colloidal solutions. IV. Interaction of zinc ferroeyanide and (a) ferric hydroxide, (b) thorium hydroxide, and (c) cerie hydroxide, I, 114. See also Vora, V. C.

Barvinok, M. S. See Dumanski, A. V. Barzakovski, V. P., density, viscosity, conductivity, and surface tension of certain binary salt systems, I, 252.

Basak, N. G. See Ghosh, J. C. Bashenov, N. M. See Smirnov, L. V. Bashenova, M. A., transplantation of dried

and frozen cornea, III, 180.

Bashford, M., epidemiology of anterior poliomyelitis, III, 935.

Bashulin, P. A., absorption of ultrasonic waves by electrolytes, I, 162.

Basileiados, P. C., action of chloroform on flagellar agglutination H and somatic agglutination O of vibrios: serological mutation of their antigens, III, 144.

Basinski, D. H. See Sealock, R. R. Basir, M. A., histology of lumph nodes in

Echidna, III, 159.
Basler, R. See Volhard, E.

Basrur, V. S., and Qureshi, M., palm juice. Analysis of fresh and fermented juice. III, 405.

Bass, I. N. D., and Tewari, J. D., effect of unsaturated chromophores on pyronine dyes. II. Dyes obtained from maleic and succinic acids, II, 202.

Bass, M. H., extreme cosinophilia and leucocytosis, III, 835.
Bass, V. See Atkinson, A. J.

Bassani, B. See Cattaneo, C.

Bassett, A. M., Althausen, T. L., and Coltrin, G., intravenous galactose clearance test for differentiation of obstructive from parenchymatous jaundice, III, 583.

Bassett, H. See Jorissen, W. P. Bassett, L. See Selye, H. Bassler, G. C. See Simons, J. H.

Bast, T. H., development of otic capsule. V. Residual cartilage and defective ossification and their relation to otosclerotic foci, III, 92.

Bastedo, W. A. See Scudi, J. V. Basu, K. P., and Malakar, M. C., iron and manganese requirement of human adult, III, 115. Basu, S. K. See Ranjan, S.

Basu, U. P., and Das-Gupta, S. J., heterocyclic sulphonamides, II, 340.

Batalin, A. C., and Schtscherbakov, N. A., heat of reaction of sulphur monochloride with methyl and ethyl alcohol,

Batchelder, A. C., and Schmidt, C. L. A., effects of salts on dissociation of alanine. II. Cells without liquid-junction potentials. I, 47. Effects of salts on dissociation of aspartic acid, arginine, and

ornithine, 1, 47.
Batdorf, S. B., and Thomas, R., burst production by mesotrons of spin one-half and zero magnetic moment, I, 289.

Bate, A. E., surface tension and angle of

contact of a liquid, I, 324.

Bateman, J. B., and Chambers, L. A., "surface elasticity" of protein films. II., I, 166.

Bateman, L. C., and Robinson, (Sir) R., synthesis of substances related to sterols. οf cyclo-XXXIII. Hydrogenation pentenonaphthalene derivatives, II, 295.

Bates, D.  $\hat{R}$ ., and Massey, H. S. W., exchange effects in theory of continuous absorption of light. I. Ca and Ca+, I, 191.

Bates, G., and Weiss, C., delayed development of antibody to staphylococcus toxin in diabetic children, III, 1070.

Bates, J., beri-beri heart in a young woman, III, 374.

Bates, J. B. See Weiser, H. B.

Bates, J. C., making permanent mounts of portions of decolorised whole leaves, III, 315.

Bates, L. F., concentrated ferromagnetic amalgams, I, 164. Hysteresis cycle and its interpretation, I, 329.

and Weston, J. C., adiabatic temperature changes accompanying the magnetisation of ferromagnetic materials in low and moderate fields, I, 32.

Bates, O. K., Hazzard, G., and Palmer, G., thermal conductivity of liquids; twelve industrial chlorinated hydrocarbons, I, 200.

Bates, R. G., thermodynamics of biunivalent electrolytes. VI. Solutions of cadmium iodide from 5° to 40°, I, 211.

Bates, R. W., Riddle, O., and Miller, R. A., preparation of adrenotropic extracts and their assay on 2-day chicks, III,

See also Lahr, E. L., and Schooley, J. P. Bath, (Miss) J. D., and Ellis, J. W., near infra-red absorption spectra of pro-teins; gelatin, silk fibroin, and zinc insulinate, I, 148. Sec also Ellis, J. W., and Sponsler, O. L.

Batizfalvy, J., gynæcological and obstetrical significance of thrombopenic purpura,

1II, 556.

Batterman, R. C., Holman, D. V., and De Graff, A. C., therapeutic effectiveness and potency of digilanid in treatment of congestive heart failure, III, 1049.

Battro, A., Braun Menendez, E., Lanari, A., and Leloir, L. F., pressor action of renin and hypertensin in man, III, 173.

See also Castex, M. R.

Batuev, M. I., binding between molecules and intramolecular complexes of phenols, and dispersion of absorption bands, I, 148. Optical investigation of intramolecular hydrogen bond, I, 445.

Baturin, V. P., fluorite and celestite in Kungurian deposits of Ural-Emba region,

Baty, M. See Gaebler, O. H.

Baudisch, O., reaction with nitroxyl radical NOH, II, 39. Preparation of nitrosophenols from benzene or other aromatic hydrocarbons at room temperature, II, 130.

See also Welo, L. A.

Baudouin, A., and Lewin, J., content of cerebral ultrafiltrate in nitrogenous compounds, III, 431.

Baudouin, J. A., vaccination against tuberculosis with BCG vaccine, III, 144. Bauer, A. R., respiration in newborn

infants, III, 338.

Bauer, G., treatment of hydronephrosis and renal pain by denervation of kidney, III,

Bauer, H., experimental and clinical hæmothorax, III, 175.

Bauer, Hugo, preparation of p-aminobenzenephosphonie [phosphanilic] acid, II, 384.

Bauer, S. H., and Beach, J. Y., structures of methyl borate and trimethyl triborine trioxane; interatomic distances in boron compounds, I, 327. See also Beach, J. Y.

Bauer, S. T. Seo Ralston, A. W.

Bauer, W., and Aub, J. C., calcium and phosphorus metabolism; influence of pituitary gland, III, 1007.

See also Hench, P. S., Robertson, W. v. B., and Ropes, M. W.

Bauer, W. H., osteoarthritis deformans of temporomandibular joint, III, 638. Bauermeister, W., palæolithic remains from German East Africa, III, 488.

Bauernfeind, J. C. See Norris, L. C.
Baughan, E. C., heat of hydration of
the proton, I, 15. Organic linking
strengths and heat of vaporisation of carbon, I, 245.

Evans, M.G., and Polanyi, M., covalency, ionisation, and resonance in carbon bonds, I, 364.

and Polanyi, M., energy of aliphatic carbon linkings, I, 74.

Bauman, L., and Orr, L., bromsulphalein test [for hepatic disease], III, 768. Sec also Whipple, A. O.

Baumann, A., and Wirth, J., regulation phenomena in anomalous closure of neural tube in chick embryo, III, 239.

Baumann, C. A., Foster, E. G., and Lavik, P. S., effect of carcinogens on vitamin-A in liver, III, 1034. See also Berger, J., Jacobi, H. P., and

Rusch, H. P.

Baumann, E., Tiegel-Dracger warm ether anæsthesia apparatus, III, 217.

Baumberger, J. P. Sec Baker, E. G. S. Baumgarten, E. C., and Cantor, M. O., phæochromocytoma, III, 95.

Baumoel, S., and Marks, M. I., evaluation of vertigo following head injuries. III. 435.

E., and Brunnschweiler. Baur, inhibitors of guaiacum blueing, III, 703.

and Namek, M., formation of carbonic and carboxylic esters, II, 29.

Bauwens, P., electro-diagnosis and electrotherapy in peripheral nerve lesions, III, 658. Thermionic control of electric currents in electro-medical work, III, 1058.

Baxendale, J. H., and Warhurst, E., hydrogenation and exchange reactions

of methyl oleate, II, 29.

Baxter, G. P., Gnichard, M., Hönigschmid, O., and Whytlaw-Gray, R., eleventh report of committee on at. wts. of International Union of Chemistry, I, 141.

Baxter, J. H., jun. See Robbins, B. R., and Stoughton, R. W.

Bay, Z., electron multiplier as an electron counting device, I, 223.

Bayer, H. J. See Rosenburg, S. A.
Bayer, L. M., weight and menses in
adolescent girls with special reference to build, III, 99.

and Davis, J. H., non-diabetic glycosuria in children, III, 202.

Bayley, H. H., injuries caused by scorpion fish, III, 223.

Bayliss, M., mechanism of vomiting produced by staphylococcus enterotoxin, III, 679.

See also Smith, L. I.

Bazett, H. C., modified Haldane gas analyser for analysis of mixtures with 100% absorbable gas, I, 349.

Bazilevitsch, I. V., syndrome of normal senility, III, 18. Water metabolism in

centenarians, III, 902.

Beach, E. F., Bernstein, S. S., Hoffman, O. D., Teague, D. M., and Macy, I. G., distribution of nitrogen and protein amino-acids in human and cow's milk, III, 763.

Bernstein, S. S., and Macy, I. G., intake of amino-acids by breast-milkfed infants and amino-acid composition of cow's milk and human milk. III, 1031.

See also Erickson, B. N., and Williams, H, H.

Beach, F. A., effects of lesions to corpus striatum on spontaneous activity in male rat, III, 987.

Beach, G. W. See Hoskins, W. H.

Beach, J. R., and Twisselmann, N. M., attempt to produce lymphomatosis in chickens by injection with Salmonella aertrycke and lymphomatous nerve tissue: blood picture of chickens, III, 53.

Beach, J. Y., electron diffraction investigation of the molecular structures of tetrahydrofuran, 2:5-dihydrofuran, furan, dioxadiene, and p-dioxen, I, 105.

and Bauer, S. H., structure of hydrides of boron. VI. AlB<sub>3</sub>H<sub>12</sub>, I, 104.

See also Bauer, S. H.

Beach, S. J., and Holt, E. E., rare form of glaucoma, III, 747.

Beadle, G. W., Tatum, E. L., and Clancy, C. W., food level in relation to development and eye pigmentation in Drosophila melanogaster, III, 955.

Beadle,  $\tilde{L}$ . C., and Cragg, J. B., osmotic regulation in fresh-water animals, III,

Beale, G. H., gene relations and synthetic processes, III, 488.

and Faberge, A. C., effect of temperature on mutation rate of unstable gene in Portulaca grandiflora, III, 548.

Price, J. R., and Sturgess, V. C., antho-eyanins. VII. Natural selection of flower colour, III, 946.

Beale, R. S., Hutchison, A. W., and Chandlee, G. C., permanganate titration of thallous salts, I, 346.

Beall, C. F. See Grauer, R. C.

Beall, D., isolation of cestrone from ox

adrenals, III, 184.

Bywaters, E. G. L., Belsey, R. H., and
Miles, J. A. R., crush injuries with impairment of renal function, III, 448. See also Bywaters, E. G. L., and King, E.J.

Beall, G., effect of temperature on pupation, III, 1022.

Beams, H. W., and King, R. L., air-driven ultracentrifuge: effects of ultracentrifuging Ascaris suum eggs, III, 484. See also King, R. L., and Skarstrom, C.

Bean, D., eye and ear in aviation, III, 848. Bean, J. W., oxygen poisoning in microorganisms and its relation to toxicity of oxygen at high pressure on mammalian tissue, III, 735.

and Bohr, D. F., anoxic effects of high oxygen pressure on smooth muscle. III. 735. Effects of adrenaline and acetylcholine on isolated iris muscle, in relation to pupillary regulation, III, 747.

Bean, W. B., and Spies, T. D., vitamin deficiencies in chronic diarrhœa, III,

See also Spies, T. D.

Bear, R. S., and Cori, C. F., X-ray diffrac-tion studies of synthetic polysaccharides, III, 796. and French, D., X-ray diffraction pat-

terns from starch granules, I, 452.

Palmer, K. J., and Schmitt, F. O., X-ray diffraction studies of nerve lipins, III, 739.

See also Schmitt, F. O.

Beard, Dorothy. See Neurath, H., Sharp, D. G., and Taylor, A. R.

Beard, D. W. See Bryan, W. R. Beard, J. W. See Bryan, W. R., Neurath, H., Sharp, D. G., and Taylor, A. R.

Beard, P. See Sahyun, M. Beard, R. R. See McNaught, J. B.

Bearden, J. A., and Snyder, T. M., X-ray spectra arising from valency band-L transitions of tungsten, tungsten oxide,

and platinum, I, 311.

Beardsley, N. F., correlation between cosmic-ray intensity at Cheltenham [U.S.A.] and air temperatures and pressures for 1939, I, 190. Change in height of a mesotron-producing layer of air, I, 191.

Beardwood, J. T., jun., diabetic care, III,

Beasley, W. C., deafness in the population, III, 183. Correlation between hearing loss measurements by air conduction on eight tones, III, 435. Impaired hearing in population of United States, III, 435.

Beath, O. A. See Bradley, W. B. Beaton, J. G. See Bieter, R. N.

Beattie, C. P. See Senekji, H. A. Beattie, J. A., and Stockmayer, W. H.,

oquations of state, I, 160.

Beattie, M., use of single guinea-pig for virulence testing, III, 473.

Beattie, M. W., Berlow, A., and Leshne, F. L., rabbit test for thermal reactions caused by concentrated horse serum, III, 643.

Beatty, H. A. See Calingaert, G. Beaumont, G. E., Dodds, E. C., and Robertson, J. D., calcium and phosphorus metabolism in thyrotoxicosis, III, 261.

Beaver, J. J. See Fye, P. M.

Beazell, J. M., rôle of stomach in digestion of carbohydrate and protein, III, 877. and Ivy, A. C., quantity of colonic flatus excreted by "normal" individual, III,

Schmidt, C. R., and Ivy, A. C., diagnosis and treatment of achylia pancreatica, III, 1015.

Beck, A. B., copper content of milk of sheep and cows, III, 1022.

Beck, E., homology and anatomical equivalence [of cerebral cortex], III, 991. Beck, F. F., Musser, R., Carr, C. J., and Krantz, J. C., jun., metabolism of

glucose fragments in man, III, 122.

Beck, G. M. See Hubbard, R. S.

Beck, J. D. See Craige, A. H.

Beck, W. C. See Scupham, G. W.

Becker, (Frl.) E. See Berg, R.

Becker, Eugene, and Szabó, B. H., vitamin-D as a subcutaneous injection, III, 1038. Becker, G., test investigations in asthma and other allergic diseases, III, 397.

Becker, H. C., and Inglis, D. T., determination of fructose in presence of glucose and sucrose; ferricyanide method, ĬJ, 116.

Becker, M. F., and Windle, W. F., origin and extent of gastro-intestinal motility in cat and guinea-pig; observations on

foctuses, III, 766.

Becker, R. F., Kuo vaseline technique for studying behaviour development in chick embryos, III, 239. Gastrointestinal activity in utero, III, 877.

Windle, W. F., Barth, E. E., and Schulz, M. D., feetal swallowing, gastro-intestinal activity, and defrecation in amnio, III, 719. See also Windle, W. F.

Becker, S. W. See Clark, D. E. Becker, T. J. See Warren, M. R.

Becker, W., initial increase of sugar in cerebrospinal fluid in tuberculous meningitis, III, 344. Whoopingcough prophylaxis and treatment with antitoxic horse serum, III, 392.

and Girgensohn, H., complete occlusion of abdominal aorta by thrombosis in childhood, III, 338.

Becker-Freyseng, H. See Clamann, H. G. Beckmann, C. O., and Marks, H. C., solvent action on optical rotatory power. III. Influence of liquid structure on interaction of dipoles. IV. Rotivity of diethyl dipropionyl-d-tartrate l-menthyl acetate in aromatic and aliphatic solvents, I, 6.

Becks, H. See Ray, R. D.
Beckwith, C. J. W., administration of toxoid and results of Schick testing in Glace Bay, Nova Scotia, 1938-1939, III,

Beckwith, J. R., effect of time factor on amount of pressor material present in kidney after unilateral ligation of renal pedicle and after unilateral ligation of ureter, III, 845.

and Chanutin, A., blood volumes in hypertensive partially nephrectomised rats, III, 553.

Bédert, W. See Feitknecht. W.

Bedford, T. H. B., ether and normal saline solution absorption from subarachnoid

space [dog], III, 746.

Bedson, S. P., virus diseases acquired from animals, III, 311.

Beebe, J. M., myxobacteria. I. Distribution in central Iowa. II. Rôle of myxobaeteria as bacterial parasites, III, 927.

Beeck, O., Givens, J. W., and Smith, A. E., mechanism of boundary lubrication. I. Action of long-chain polar com-

pounds, I, 208.

Givens, J. W., and Williams, E. C.,
mechanism of boundary lubrication. II. Wear prevention by addition agents, I, 208.

Smith, A. E., and Wheeler, A., catalytic activity, crystal structure, and adsorptive properties of evaporated metal films, I, 205.

Beek, J., jun., carbohydrate in collagen, III, 886.

Beeman, E. See Allee, W. C.

Beeman, J., sodium acid sulphate poisoning, III, 918.

Been, J. See Lehrman, L.

Beer, A., predisposition to serum disease, III, 397.

Beer, A. A., and Kotschetkov, N. K., elimination of phthalyl residue in Gabriel's synthesis [of amines], II, 65.

Beerman, H. See Stokes, J. H. Beers, Y. See Ladenburg, R.

Beerstecher, E., jun., estrogens in urine of normal and vitamin-E-depleted rats. III, 356.

Beeson, K. C., mineral composition of crops with reference to soils, III, 1033.

Beevers, C. A., and Hughes, W., crystal structure of Rochelle salt (sodium tartrate potassium tetrahydrate,

NaKC<sub>4</sub>H<sub>4</sub>O<sub>8</sub>,4H<sub>2</sub>O<sub>9</sub>, I, 157.

Behnke, A. R., and Willmon, T. L., gaseous nitrogen and helium elimination from body during rest and exercise, III, 655. Cutaneous diffusion of helium in relation to peripheral blood flow and absorption of atmospheric nitrogen through the skin, III, 655.

Behnsen, G. See Janzen, R. Behr, E. See Dijkhuizen, R. K. Behr, L. C. See Fuson, R. C.

Behre, J. A., salicylaldehyde method for determination of acetone bodies in blood and urine, III, 63.

Behrendt, H., undesirable tuberculin reactions, III, 54.

Behrens, D. J., measuring internal area of section of a glass tube, I, 180.
Behrens, O. K., Doherty, D. G., and

Bergmann, M., resolution of dl-phenylalanine by asymmetric enzymic synthesis, II, 41.

See also Miller, G. M.

Behrman, H. T. See Combes, F. C.Behrman, W., positions inhibiting, and positions promoting, nystagmus, III,

Behrmann, V. G. See Branfield, C. R. Beilly, J. S. See Litchfield, H. R.

Beinhauer, L. G., Knoll, A. F., and Perrin, S. R., clinical response of skin diseases to sulphathiazole, III, 693.

See also Knoll, A. F.

Beischer, D. See Thiessen, P. A. Bekkedahl, N., and Wood, L. A., influence of temperature of crystallisation on melting of crystalline rubber, I, 159.

Belaiev, A. F., combustion of nitroglycol, I,

Belaiev, J. N., conductivity and dissociation constants of amino-acids in alcoholic

solution, I, 264.
Bélanger, L. F., histological structure of respiratory portion of lungs of aquatic mammals, III, 159.

Belasco, I. J., effect of thyroxine and thyrotrophic hormone on liver and kidney tissue respiration of rats of various ages, III, 351. and Murlin, J. R., effect of vitamin-A

and -C on experimental hyperthyroidism, III, 283. Effect of thyroxine , and thyrotropic hormone on basal metabolism and thyroid tissue respiration of rats at various ages, III, 351.

See also Stephens, D. J.

Belcher, R., micro-chemical analysis and

its applications, I, 482.

and Godbert, A. L., titrimetric determination of semi-micro-amounts of sulphates, I, 346. Semi-micro-method for determining of organic nitrogen, II, 307. Determination of phosphorus in organic compounds on semi-micro-

scale, II, 307.

Belenki, M. S., and Kovaleva, L. I., reduction by activated charcoal of silver ions from aqueous solutions in presence

of alcohols, 1, 10.

Belfer, S. See Bradley, H. C. Belfiori, O. See Quartaroli, A.

Belfrage, H. See Anderson, H.
Beliakov, M. F., axinite in near-polar
Urals, I, 181.
Belitzer, V. A., regulation of respiration by transformation of phosphagen, III, 601.

Golovskaja, K. S., phosphate acceptors in "respiratory phosphorylation" in muscle tissue, III, 1039.

and Tzibakova, E. T., mechanism of phosphorylation associated with respiration, III, 604.

Belknap, E. L., lead hazards in printing. II. and IV., III, 384, 920.

Bell, D. J., determination of the relationship between refractive index and specific rotation in mixtures of 2:3:4:6tetramethyl-a- and -\beta-methyl-d-galactosides, II, 34.

and Baldwin, E., chemistry of galactogen from Helix pomatia; l-galactose as a component of a polysaccharide of animal origin, II, 161. l-Galactose as component of a polysaccharide of animal origin, III, 111.

Bell, F., 5-amino-1-aryl-3-methylpyrazoles, 11, 205.

and Briggs, F., reactions of diphenic anhydride, I1, 226.

Bell, F. K., Carr, C. J., and Krantz, J. C., jun., sugar alcohols. XXI. Effect of anhydrides of sorbitol on dissociation constant of boric acid, I, 47.

Bell, F. O. See Astbury, W. T.
Bell, G. H., nomograms for hamatologists,
III, 6. Movements of unloaded uterus, III. 442.

and Knox, J. A. C., resuscitation from shock, III, 9.

Lazarus, S., and Munro, H. N., capillary fragility, III, 82.

Bell, G. J., sulphapyridine in bacillary dysentery, III, 1046.

Bell, J. A., pertussis prophylaxis with alum-precipitated vaccine, III, 1070.

Bell, K. G., Goodman, C., and Whitehead, W. L., radioactivity of sedimentary rocks and associated petroleum, I, 136.

Bell, M. E. See Berberich, L. J., and Manning, M. F.

Bell, R. P., bond energies and repulsion energies in proton transfer reactions, I. 473.

and Norris, A. D., reaction velocities at low temperatures. III. Synthesis of diethyl acetal at temperatures between 44° and +25°, I, 171.

Bell, R. T., and Agruss, M. S., analytical procedure for mixtures of organic sulphur

compounds, II, 235.

Bell, T. D., Casida, L. E., and Darlow,
A. E., effects of estrogen and progesterone on genital tract of ewe, III, 440.

Bellamy, L. J., and Dorée, C., lanosterol. II. Oxidation of lanosterol with chromic acid. III. Action of selenium dioxide and of perbenzoic acid on lanosterol, II,

Belles, C. J., determining specific gravity of body fluids by falling drop principle, III, 645.

Bellet, S., Kershbaum, A., and Furst, W. electrocardiogram during electric shock treatment of mental disorders,

Kershbaum, A., and Schwartz, Leon, effects of tobacco smoke and nicotine on normal heart and in presence of myocardial damage produced by coronary ligation, 111, 334.

Bellolio, P. See Lipschütz, A.

Bellows, J. G., and Chinn, H., regeneration of aqueous, III, 258. Penetration of sulphathiazole in the eye, III, 432. Biochemistry of lens. XIII. Production of lens opacities by injection of hypertonic solutions, III, 668.

Belogurov, A., succession of pharyngeal teeth in Cyprinus carpio, III, 545.

Belokvinitzki, E. P., preparation of phenthiazine, II, 381.

Belousov, A. M., and Belousova, A. G., enhancement by flotation of sensitivity of reactions for phosphate and arsenate, I, 126.

Belousov, V. A., and Gilman, M. H., protein optimum in rations of school children. III. Retention of nitrogen for various proportions of animal and plant proteins in rations of healthy normal children, III, 114.

Belousova, A. G. See Belousov, A. M. Belov, V. N., and Lebedev, B. M., polymerising action of methyl sulphate on ethylenic compounds. I. Polymerisation of aa-diphenylethylene, II, 284.

Belozerski, A. N., and Tschernomordikova, L. A., nucleoproteids and nucleic acids of wheat germ, III, 819.

Belozerski, N. A., and Kutscherenko, O. A., physico-chemical properties of rare metals. II. Systems ZrCl.-NaCl and ZrO<sub>2</sub>-CaCl<sub>2</sub>, I, 377.

and Rezvaja, K. I., physico-chemical properties of rare metals. I. Decomposition potential of molten tantalum chloride, I, 379.

Belsey, R. H. See Beall, D. Belt, T. H., Ferris, A. A., and King, E. J., silicotic nodule in human and experimental silicosis, III, 43. See also King, E.J.

Belton, J. W., and Evans, M. G., molecular forces involved in surface formation. Surface energies of pure liquids, I, 75.

Belton, J. W., and Twidle, A. H. H., surface tensions of amino-acid solutions as a

function of  $p_{\rm H}$ , I, 38. Beltschikova, E. P. See Gindin, L. G. Beltz, J. C., electrochemical methods in

organic chemistry, II, 81. Bembry, T. H. See Powell, G.

Ben-Dor, B., lethal dermatitis in chickens produced by external application of fat, III, 603. Requirement of potassium by chick, III, 775.

Bena, J. H., bismuth poisoning after oral administration, III, 529.
Benaron, H. B. W., and Farnsworth, E.,

serum transfusion in eclampsia, III, 964.

Bender, I. M. See Kuznetzov, V. I. Bender, M. B., and Weinstein, E. actions of adrenaline and acetylcholine on denervated iris of cat and monkey, III, 502. See also Weinstein, E. A.

Bender, P. J. See Akerlof, G., and

Dietrich, H. G.

Bender, R. C. See Supplee, G. C.

Benecke, E., and Schröder, J. S., tumour induction in salivary glands, III, 19.

Benedek, L., vertebra prominens reflex, III, 985.

and Angyal, L. von, disturbances of body image in psychotics, III, 995. and Juba, A., Korsakov's syndrome, III,

87. Pathology of polyradiculitis with nuclear amyotrophy and of Guillain-Barré type, III, 986. Korsakov's syndrome, functional disturbance of autonomous nerve centres, and hypothalamus, III, 988.

Benedict, H. M., effect of day length and temperature on flowering and growth of

four species of grasses, III, 816. Benedict, W. S. See Harris, L.

Benesch, R., chemical substitutes for

dietary protein, III, 516.

Benevolenska, S. V. See Timofeevski, A. D.

Benevolenskaja, Z. V. See Knuniantz, I. L.

Bengry, R. P. See Pearsall, W. H. Bengtson, I. A., complement fixation in endemic typhus fever, III, 809. Active and passive immunity in Q fever infected and immunised guinea-pigs, III, 935. Complement fixation in Q fever, III, 1076.

Benham, R. W., cultural characteristics of Pityrosporum ovale, a lipophilic fungus; nutrient and growth requirements, 111,

Benjamin, B., Fleming, G., and Ross, M. A., results of Schick test in children one to ten years after injections of toxoid, III, 537.

See also Lubinski, II.

Benjamin, E., period of resistance [to training] in early childhood, III, 856.

Benjamin, J. E. See Landt, H.

Benjamin, M., and Jenkins, R. O., distribution of autelectronic emission from single crystal metal points. I. Tungsten, molybdenum, nickel in the clean state, I, 32.

Benkovitsch, I. L., protein metabolism of brains in trauma. V. Change in protein and lipin-phosphorus in brain depending on its state, III, 744.

Benmosche, M. See Seymour, F. I.

Benne, E.J., [determination of] chlorophyll and carotene in plant tissue, III, 942.

Wolman, W., Hibbard, R. P., and Miller, E. J., determination of carotene, III,

See also Petering, H. G.

Bennella, E. See Sartori, A. Benner, M. C., involution of feetal cortex

of adrenal glands, III, 264.

Bennet-Clark, T. A., and Bexon, D., water relations of plant cells. II., Ill, 233.

Bennett, A. E., curare in organic neurological disorders, III, 986.

Bennett, D. W., sodium and potassium studies in persons with and without arterial hypertension, III, 174.

Bennett, E. C. See Anderson, Ernest. Bennett, G. A., and Ramsay, A. J., experimental studies on movements of mam-

malian tongue, III, 409.

Bennett, G. M., and Hafez, M. M., synthesis of dihydroindole, dihydrothionaphthen, and dihydrobenzofuran, II, 204.

Bennett, P. T., and Maccoll, A., thermal decomposition of ethylidene bromide, I,

Bennett, R. H. See Loughlin, E. H., and Spitz, S. H.

Bennett, T. I., and Hardwick, C., chronic jejuno-ileal insufficiency, III, 200.

Bennett, W. C. See Little, J. M. Bennett, W. E., Bonner, T. W., Hudspeth, E., Richards, H. T., and Watt, B. E., disintegration of carbon by deuterons, I, 313.

Bonner, T. W., Richards, H. T., and Watt, B. E., high energy γ-ray from Li + D, I, 313.

Bonner, T. W., and Watt, B. E., energy of y-rays from disintegration of fluorine by protons and deuterons, I, 314.

Bennett, W. H., mobilities in hydrogen at high current densities, I, 66.

See also Otto, W. H.
Bennetts, H. W., coast disease [of sheep] in Western Australia, III, 282.

Bennholdt-Thomsen, C., influence of a-tocopherol on lactation, III, 360.

and Dieckerhoff, R., increase of bloodnon-protein nitrogen in diphtheria, III,

and Dienst, W., agglutination in whooping cough of sucklings, III, 393.

Benotti, N. See Brown, E. A., and Thurmon, F. M.

Benson, A. A. See Niemann, C.

Benson, L., and Rogers, E. J., blood sedimentation rate in healthy girls, III,

Benson, O. O., effect of decreased barometric pressure on electrocardiogram, III, 79.

See also Boothby, W. M.

Benson, R. A., Witzerberg, C. M., and Slobody, L. B., urinary exerction of thiamin in normal children, III, 892.

Benson, S. W., micro-method for identification of volatile liquids; vapour pressures of cyclopentane and pentenes, II, 306.

Bent, H. E., and French, C. L., structure of ferric thiocyanate and its dissociation in aqueous solution, I, 210.

Bentley, E. P. See Harrison, G. R.

Bentley, F. H., and Smithwick, R. II., visceral pain from jejunal distension, Ill,

Benton, F.L. See Wolfrom, M.L. Benz, E.W. See King, C.E.

Berberich, L. J., and Bell, M. E., dielectric properties of rutile form of TiO2, I, 363.

Bercovitz, Z., treatment of food-borne diseases of gastro-intestinal tract, 111, 880. Diagnostic significance of cellular exudate studies in chronic bowel disorders, III, 881. Berenblum, I., cocarcinogenic action of croton resin, III, 277.

Berenblum, L. S. See Delimarski, J. K.

Berens, C., and Nilson, E. L., experimental acute iridocyclitis in rabbits produced by coliform bacteria isolated from upper respiratory tract of man, III, 747.

Bereshinskaja, M. T. See Gurevitsch, J. M. Berezovskaja, F. I., and Varfolomeeva, E. K., effect of catalysts on decomposition of organic peroxides. I. Ethyl peroxide and benzoyl peroxide, I, 476.

Berg, J. N., and Vischniakov, M. N., influence of hydrophilic colloids on the rate of solution of metal oxides in acids, I, 112.

Berg, L. G., heating curves of potassium phosphates, I, 267.

and Boki, G. B., double salts of mono-

and di-potassium phosphate, I, 267. and Nikolaev, A. I'., heating curves of sulphates of bivalent metals, I, 265.

Berg,  $\hat{M}$ ., Mayne, A., and Petersen, IV. F. variability of blood- $p_H$  and its association with meteorological factors, III, 166.

Berg, R., and Becker, (Frl.) E., determination of cerium, and separation of thorium and cerium by means of 8-hydroxyquinoline, I, 429. Precipitant for metals: 5-(8'-hydroxy-5'-quinolinyl)imino-8-keto-5:8-dihydroquinoline

"indo-oxime") with indicator properties, I, 429.

Bergami, G. See Scoz, G. Bergen, W. R. See Haagen-Smlt, A. J. Berger, J., Johnson, M. J., and Baumann, C. A., enzymic hydrolysis of d-peptides, III, 302.

Berger, S. S., and Applebaum, H. S., toxic hepatitis due to sulphanilamide, III, 611. Berger, W., and Schnetz, H., disturbances of pancreatic function in diseases of bile

ducts, III, 103. Bergh, G. S. See Layne, J. A.

Bergman, A. G., and Tschagin, I. M., physico-chemical analysis of fused salt 1. Conductivity of binary systems of nitrates, chlorides, and iodides

of sodium, potassium, thallium, mercury, and silver, I, 268.

Bergman, A. J., and Turner, C. W., specificity of lactogenic hormone in initiation of lactation, III, 575.

See also Meites, J. Bergman, G. G., vanadium in oil products and bituminous rocks, I, 232.

Bergman, W. E. See Marshall, C. E.

Bergmann, E., and Bograchov, E., reactions of pyrene, II, 223.

Haskelberg, L., and Bergmann, F., synthesis of lipophilic chemothera-peuticals. VI. Lipophilic substitutions in azo-dyes, II, 358.

and Samuel, R., photodissociation of organic molecules, I, 173.

Bergmann, F.,  $\Delta^a$ -nonene-a-dicarboxylic acid, II, 211. Semicarbazone of methyl ester of azelaic half-aldehyde, II, 351. Attempted synthesis of aβy-triphenvl-∠lay-butadiene; thesis and properties of aby-triphenylallyl alcohol, II, 356.

and Haskelberg, L., synthesis of lipophilic chemotherapeuticals. Properties of halogeno-acylearbamides, -carbamides, and related compounds. V. N<sup>4</sup>-Acylsulphanilamides, II, 245,

and Weinberg, (Miss) Z., synthesis of substituted stilbenes and diphenyl-butadienes, II, 125.

Bergmann, F. See also Bergmann, E., and Haskelberg, L.

Bergmann, H. See Levine, Michael. Bergmann, M. See Behrens, O. K., Fruton, J. S., Hofmann, K., Irving, G. W., jun., Lester, D., Smith, E. L., and Stein, W. H.

Bergmann, W., and Lester, D., coral reefs and formation of petroleum, I, 184. See also Valentine, F. R., jun.

Bergo, G. See Leibusch, A.

Bergström, S., preparation of  $\Delta^{9:11}$ -cholenic acid, II, 66. See also Wintersteiner, O.

Bergstrom, F. W., and Rodda, J. H., preparation and properties of 4-substituted isoquinolines, 11, 269.

Beris, L. See Siegler, S. L. Berkelhamer, L. H., X-ray diffraction—an important tool in pneumoconiosis research; tissue analysis, III, 620.

Berkman, J. See Sherry, S.
Berkol, S. See Haurowitz, F.
Berkson, J. See English, J. P.
Berkwitz, N. J., treatment of mental dis-

orders with pharmacological and electrical shock methods, III, 860.

Berlaga, R. J., and Demidov, K. K., influence of high-frequency electric field on velocity of crystallisation of under-cooled salol, I, 78.

Berlin, H., determination of 2-methyl-1:4-naphthaquinol diacetate, a substance exhibiting vitamin-K activity, II, 24.

Berliner, R. W. See Ferrebee, J. W. Berliner, V. R., artificial insemination in horses and mules, III, 875.

Berlow, A. See Beattie, M. W.

Berman, A. L., and Ivy, A. C., choleretic action and excretion of cinchophen in rabbit bile, III, 464.

Snapp, E., Ivy, A. C., and Atkinson, A. J., effect of bile acids on volume and constituents of bile, III, 15. Homeostasis of acid output in bilary-duodenal fistula dogs, III, 882. Snapp, E., Ivy, A. C., Hough, V. H., and

Atkinson, A. J., effect of desiccated hog bile and hog bile acid preparations on volume and constituents of bile, III, 769.

Berman, II., and Wolfe, C. W., bellingerite, a new mineral from Chuquicamata, Chile, I, 352.

Berman, R. A. See Friedgood, H. B., and Talbot, N. B.
Berman, R. L. See Frank, R. T.
Bernadiner, M. P. See Morgulis, N. D.

Bernal, J. D., Crowfoot, (Miss) D., and Fankuchen, I., X-ray crystallography and chemistry of steroids, I, 155.

and Fankuchen, I., X-ray and crystallographic studies of plant virus preparations. I.—III., III, 1077.

Bernardini, G., Cacciapnoti, B. N., Ferretti, B., Piccioni, O., and Wick, G. C., genetic relation between electronic and mesotronic components of cosmic rays near and above sea level, I, 69.

Bernds, M. See Kempster, E Bernfeld, H. P. See Meyer, K. II.

Bernfeld, K., Feilschenfeld, M., and Hirsch, W., chronic otitis media and vitamin-C metabolism in childhood, III, 286.

Bernfeld, P. See Meyer, K. H. Bernhard, A., crymotherapy; chemistry, 111, 531. blood

Bernhard, K., and Gressly, E., oxidation of the benzene ring in the animal body, III, 605.

Bernhard, P. See Woker, G.

Bernheim, A. I. See Klemperer, P.

Bernheim, F., interaction of vitamins and drugs with cell catalysts, III, 180. Reduction of neoprontosil by tissues in vitro, III, 605.

and Bernheim, M. L. C., effect of 2:3:5tri-iodobenzoate and monoiodoacetate on oxidation of substances of rat brain, III, 525. Oxidation of various sugars by brain tissue, III, 857.

and Klein, J. R., action of sodium selenite

on oxidation of *l*-proline, II, 244.

Bernheim, M. L. C. See Bernheim, F., and Handler, P.

Bernkopf, H., and Kligler, I. J., characteristics of fixed rabies virus cultivated on developing chick embryos, III, 631. See also Kligler, I. J.

Bernold, E. See Ruzicka, L. Bernoulli, A. L., and Stauffer, H., preparation and physical properties of 1-chloro-glucose 2:3:4:6-tetra-p-toluenesulphonate, II, 119. p-Toluenesulphonation of cellulose, II, 122.

Bernreiter, M., treatment of lymphogranuloma inguinale with sulphanilamide,

III. 527.

Bernstein, A. See Wagreich, H.

ernstein, E. T., systemic sarcoidosis with coincident thrombocytopenic pur-Bernstein, E. pura, III. 833.

Bernstein, H. I. See Whitmore, F. C. Bernstein, I. See Spring, M.

Bernstein, L. H. T., capsulation of N. gonorrhææ, III, 1069.

Bernstein, M., and Simkins, S., magnesium content of blood serum and urine, III.

Bernstein, P., gastroschisis, rare teratological condition in newborn, III, 318.

Bernstein, S., and Wallis, E. S., preparation of synthetic sex hormones. I. Hexestrol, II, 9.

Bernstein, S. S. See Beach, E. F., and Williams, H.H.

Bernton, H. S. See Spies, J. R.

Berraz, G., and Virasoro, E., cuprous oxide photo-cells, I, 485.

Berry, J. K., thermo-electric effects in photometry, I, 389.

Berry, L. G., mineral sulpho-salts. IV. Galenobismutite and "lillianite," I, 354. Berry, M.G., cinchophen poisoning, III, 530. Berry, M. R., mechanism and prevention of impairment of auscultatory sounds during determination of blood pressure of standing patients, III, 80. Influence of position of arm and body on blood

pressure, III, 336.

Berry, R. O., chromosome behaviour in germ cells and development of gonads in

Sciara ocellaris, III, 640.

Berryman, G. See Schlotthauer, C. F. Berryman, G. H. See Shields, J. B.

Bertram, F., carbohydrate metabolism of normal and diabetic subjects on diets rich and poor in carbohydrates, III, 379.

Bertrand, G., and Vladeseo, R., hyper-glyczemic action of snake venom, III, 42. Besdziek, I., congenital malformations of

skeletal system, III, 410. Bessey, W. H., reflexion and diffraction of molecular beams at lithium fluoride cleavage surfaces, I, 245.

Best, A. H. Sec Sell, H. M.

Best, C. H., and Haist, R. E., effect of insulin on insulin content of pancreas, III, 1006.

See also Magladery, J. W.

Best, C. R., clinical and anatomical study of Kraepelin's presenilo psychoses, III, 994.

Best, R. J., action of electrolytes on solutions of tobacco mosaic virus nucleoprotein, III, 145. Preparation of pure tobacco mosaic virus nucleoprotein, III, 396.

See also Cooke, B.

Best, R. R., Hicken, N. F., and Finlayson, A. I., effect of dehydrocholic acid on

biliary pressure and its clinical application, III, 107.

Bethell, F. H. See Goldhamer, S. M.
Bethke, R. M. See Hunt, C. H.

Bethlahmy, S. See Reinhold, J. G. Bett, H. D. See Martin, W. H. Bettinger, H., lymphogranuloma inguinale, III, 1075.

Beutel, R. H. See Stevens, J. R. Beutner, K. R. See Beutner, R.

Beutner, R., and Beutner, K. R., emulsions of ethyl aminobenzoate as topical anæsthetics, III, 695. Bevan, C. de V., occurrence of B. flexneri

race P 119 in South Africa, III, 928.

Beveridge, J. M. R. See Lucas, C. C. Beveridge, W. I. B., alkaline culture

medium for differentiation of staphylococci and micrococci from cow's milk, III, 393.

Bexon, D. See Bennet-Clark, T. A. Beyer, H. G. See Nix, F. C.

Beyer, K. H., enzymic inactivation of (sympathomimetic) substituted phenylpropylamines, III, 469. Action of vitamin-C and phenol oxidase in inactivation of β-phenylisopropylamine (amphetamine), III, 617.

Beynon, W. J. C., formulæ for natural

dispersion of organic liquids, I, 74. ezel-Sitscheva, V. A. Sco Zacharova, Bezel-Sitscheva, A. I.

Bezrukov, P. L., Himmelfarb, B. M., and Sokolov, A. S., age of phosphorite-bearing beds of the Kara-tau, I, 183.

Bezzubetz, M. K., and Ignatiuk-Maistrenko, V. A., preparation of substituted phenylenethiazthionium compounds, II, 54.

Bhabha, H. J., protons of double charge and scattering of mesons, I, 96. Correspondence between classical and quantum theories of neutral mesons, I, 316. and Rao, B. S. M., scattering of charged mesons, I, 236.

Bhaduri, P. N. See Semmens, C. S.

Bhagavantam, S., Raman effect in relation to crystal structure: lattice oscillations, I, 399.

and Bhimasenachar,  $J_{\cdot \cdot}$ , reflexion of X-rays by crystals: calcite; naphthalene, I, 31, 326.

and Rao, B. P., effect of crystal orientation on Raman spectrum of calcite, I, 28.

Bhagwat, V. K., and Shahane, R. Y., IV. 5-5-hydroxybenzopyrone group. Hydroxy-2-methyl-3-propylchromone, II,

Bhagwat, W. V., reaction between aqueous iodine and sodium formate, I, 17.

Bhat, R. V., adaptation of micro-Kjeldahl method to determination of nitrogen in organic compounds containing nitro- and azo-groups, II, 344.

Bhatia, D., effect of inhibition of respiration and assimilation on diatom Ditylum

brightwelli (West), III, 138. Bhatkhande, A. H., Phalnikar, N. L., and Bhide, B. V., reduction of substituted malonates, II, 86.

Bhatnagar, M. S. See Bhatnagar, S. S. Bhatnagar, M. S., Kapur, A. N., and Bhatnagar, M. S., adsorptive properties of synthetic resins. IV., I, 37.

Khosla, B. D., and Chand, R., magnetic evidence regarding state of metallic ions in phosphate glasses, I, 8.

and Shrivastava, D. L., immunity and cellular changes in blood, III, 326.

Bhattacharjee, S. C. See Guha-Sircar, S. S. Bhattacharya, A. K., composition of Prussian and Turnbull's blues. IV. Adsorptive properties. V. Rôle of hydrolysis and their compositions. VI. Magnetic susceptibility, I, 368, 373, 385.

See also Dhar, N. R.

Bhattacharya, G. N., use of baking shellac varnishes for coating graphite-on-glass resistances in the laboratory, I, 486.

Bhave, V. M., condensation of  $\beta$ -arylglutaconic anhydrides with phenolic ethers, II, 365. Bhide, B. V. See Bhatkhande, A. H.

Bhimasenachar, J. See Bhagavantam, S.

Bhola, K. L., fuller's earth deposits of Jodhpur State, Rajputana, I, 436.

Biagi, R. W. See Murray-Lyon, R. M. Bianculli, J. A. See Van Meter, C. T.

Biber, V., and Neiman, I., decahydrate of chromic perchlorate, and double hydrate of chromic perchlorate and perchloric acid, I, 87.

Bichan, W. J., nature of ore-forming fluid,

I, 434.

Bick, M., biochemical changes associated with hamorrhage from stomach and duodenum, III, 878.

Bickel, G., effects of chemotherapy with sulphonamides, III, 35. Vitamin deficiencies and cardiovascular affections, III, 337.

Bidder, G. P., weighing living marine animals, III, 820.

Biddulph, C., and Meyer, R. K., influence of vitamin-E deficiency on endocrine glands of rats, particularly gonadotropic hormone content of pituitary gland, III, 759.

Biddulph, O., absorption and movement of radio-phosphorus in bean seedlings, III,

Biedermann, F. See Dyckerhoff, H. Bielig, H. J., formation of vitamin-A from

 $\beta$ -carotene in the rat, III, 1033. Biemond, A., and Creveld, S. van, cerebellar

form of encephalopathy due to lead poisoning, III, 130.

Bier, O., and Rocha e Silva, M., inflamma-

tion. I. Increase in capillary permeability in inflammation, with reference to II. Relation to Menkin's histamine. lcucotaxin to histamine. III. Chemotactic properties of inflammatory exudates, III, 968.

Bierbaum, R. L. Seo Klassen, K. P.

Bieren, R. E., use of solid carbon dioxide in preparation of museum specimens, III, 316.

Bierman, J. R. See Shafiroff, B. G. P.

Bierman, W., and Baehr, G., hyperthermia + chemotherapy in subacute bacterial endocarditis, III, 461. See also Lichtman, S. S.

Bieter, R. N., Baker, A. B., Beaton, J. G., Shaffer, J. M., Seeny, T. M., and Orr, B. A., sulphonamides and nerve injury, III, 1047.

Biffen, F. M., steam-distillation of small quantities of volatile oils lighter than water, II, 275.

Bigelow, H. E. See Linton, E. P. See Fukuhara, N., and

Bigelow, L. A. Hadley, E. H.

Bigg, E., spleen size in pernicious anæmia, III, 71.

Bigger, J. W., and McNally, P. A., action of sulphonamides on growth of bacteria

in urine, III, 461. and Nelson, J. H., growth of coliform bacilli in distilled water, III, 1067.

Biggs, B. S., and Bishop, W. S., sebacic acid mononitrile, II, 189.

Bigler, J. A., and Werner, M., active immunisation against tetanus and diphtheria, III, 1072. See also Zuelzer, W. W.

Biguria, F., and Foster, S., determination of serum-globulin in hyperglobulinæmia and critical analysis of the reaction, III, 649. Bikerman, J. J., friction and adhesion, I,

333. Measuring contact angles, I, 391. Bikoff, H. S., embryonal cyst of stomach

wall, III, 410.

Bilham, P., and Kon, G. A. R., sapogenins. X. Carbon skeleton and position of second hydroxyl group of quillaic acid, XI. Constitution of quillaic and oleanolic acids, II, 19, 370. Position of carboxyl group in oleanolic and related acids, II, **328.** 

Bilik, I. See Korolev, A. Bill, A. H. See Mull, J. W.

Billman, J. H., Garrison, J., Anderson, R., and Wolnak, B., formation of solid derivatives of amines. II., II, 287.

Binder, A. See Winkler, H. Binder, C. See Florentin, P.

Binet, L., Chauchard, P., and Perel, L., variation of excitability in lead paralysis of guinea-pig; effect of sodium thiosulphate, III, 427.

and Fabre, R., plasma-potassium hæmolysis, III, 246.

and Jaulmes, C., action of lung on organisms in circulating blood, III, 175.

Strumza, M. V., and Nicolle, P., bloodcarbon monoxide and anoxemia, III,

Binford, C. H., tolurosis of central nervous system, III, 741.

Bing, R. J., and Zucker, M. B., formation of pressor amines in kidney, III, 769. Bing-Chung-Ling, form discrimination as

learning one in infants, III, 669.

Binger, M. W. Sco Goudsmit, A.

Bingham, E. C., Adams, H. E., and
McCauslin, G. R., interrelationships between fluidity, volume, pressure, and temperature in liquids, I, 200.

and Kinney, P. W., relation of fluidity to volume in organic liquids, I, 161. Binkley, F. See Du Vigneaud, V.

Birch,  $\hat{F}$ ., and Bancroft, D., rigidity of rocks at high pressure, I, 435.

Bird, O. D. See Emmett, A. D. Birge, R. T., values of e, e/m, h/e, and a, I, 2.

Birger, N. I. See Agte, A. N.
Birjukov, N. D., preparation of chemically
pure CrO<sub>2</sub>, I, 56.
Birkhäuser, H., enzymes in brain of

mentally normal men, III, 225.

and Zeller, E. A., relationships between sex hormones and enzymes. Choline-esterase and sex hormones, III, 357.

See also Zeller, E. A.

Birkhaug, K., variations in leucocytes in BCG-immunised guinea-pigs reinfected in allergic and desensitised (iathergic) state, III, 54.

Birkmayer, W., motor signs in cardiazol convulsions, III, 990. Ocular movements during cardiazol shock convulsions, III, 990.

Birkofer, L., and Wetzel, R., d-amino-acid oxidase of liver and kidney of animals, 1II, 1061.

Birmele, H. K., rate of passage of heated and acidulated breast milk out of stomach of premature sucklings, III, 362.

Birnbaum, D. See Mer, G.

Birnbaum, N. See Edmonds, S. M.

Birnie, A. W. See Barrett, H. M.
Birnkrant, W. B., influence of parotid
gland on blood-sugar, III, 493.

Birt, A. R., value of elimination diets in treatment of infantile eczema, III, 313.

Birus, K. See Nishina, Y.

Bischler, V. See Francheschetti, A. Bischoff, F., influence of delayed resorption on specific gonadotropic augmentation, III, 579.

and Clarke, G. J., gonadotropic antagonism in mature rats, II, 759. Gonadotropic stimulation in intact and thyroidectomised adult female rats, III, 759. Influence of thyroidectomy on mare scrum hormone administration to immature rats, III, 760.

Clarke, G. J., and Epps, C. H., influence of thyroid on resorption of gonado-

tropic hormones, III, 267.

Bischoff, H., and Grasedyck-Renner, L., tinned vegetables in infant feeding and their vitamin-C content, III, 375.

Biscoe, J., X-ray study of soda-lime-silica glass, I, 461.

Druesne, M. A. A., and Warren, B. E., X-ray study of potash-silica glass, I,

Pincus, A. G., Smith, C. S., jun., and Warren, B. E., X-ray study of lime-phosphate and lime-borate glass, I, 372.

Bishman, L. See Riebsomer, J. L. Bishop, G. H., and Bartley, S. H., activity in optic system following stimulation by brief flashes of light, III, 750.

and O'Leary, J., positivo potentials recorded from superior colliculus, III, 855.

Bishop, J. W. See Hovorka, F. Bishop, W. S. See Biggs, B. S.

Biskind, G. R., inactivation of testosterone propionate by normal female rats, III, 671. Inactivation of cestradiol and cestradiol benzoate in castrate female rats, III, 675.

and Meyer, M. A., comparative androgenic potency of testosterone, methyltestosterone, and testosterone propionate administered as pellets, III, 353.

See also Mark, J.

See also Starr, C.

Biskupski, F., euphyllin in diphtheric-myocarditis, III, 613.

Biskupski, V., apparatus for rapid determination of arsenic in presence of

antimony, I, 60.
Bisson, C. S. See Keefer, R. M.
Bistritzkaja, M. G., and Kirsanov, A. V.,

a-nitropyridines, II, 75.
Bitschkov, S. M. See Braunstein, A. E.
Bitter, F., Kaufmann, A. R., Starr, C., and Pan, S. T., magnetic studies of solid solutions. II. Properties of quenched copper-iron alloys, I, 405.

influenced by nursing, III, 369. Active milk influence in breast cancer production in mice, III, 452. Influence of cestrogens on incidence of tumours in foster-nursed mice, III, 887. Incidence of mammary carcinoma in mice of A stock, III, 1026. Incidence of mammary carcinoma in inbred strains of mice, III, 1026.
Bitto, L. M. See Graham, J. H.

Bittner, J. J., breast cancer in mice as

Bittrich, N. M., clincial use of neosynephrin hydrochloride for control of blood pressure during spinal anæsthesia, III, 218. Bjerne, H., roentgenological diagnosis of

placenta prævia, III, 359. Blaauw, E. E., microscopic study of central lens capsule in glaucoma capsulare, III, 346.

Blacet, F. E., and Blaedel, W. J., photolysis of aliphatic aldehydes. VIII. Acetaldehyde, I, 121.

and Moulton, R. W., photolysis of aliphatic aldehydes. IX. Glyoxal and acetaldehyde, I, 276.

See also Blaedel, W. J., and Roof, J. G. Black, A. See Forbes, E. B.

Black, D. A. K., blood-urea in experimental hæmorrhage, III, 245. Plasma and serum in burn shock, III, 329. Bloodamino-acids in hæmatemesis, III, 971.

Powell, J. F., and Kemp, F. H., clearance of diethylamine and diethanolamine salts of 3:5-di-iodo-4-pyridone-N-acetic acid, III, 617.

Powell, J. F., and Smith, A. F., renal function after alimentary hæmorrhage in man, III, 448.

and Smith, A. F., blood and plasma transfusion in alimentary hæmorrhage,

III, 416.
Black, G., Wernicke's syndrome complicating pregnancy and associated with ocular complications, III, 865.

Black, J. R., senile osteoporosis of spine,

111, 66.
Black, L. A. Sce Faber, J. E., jun.

Black, S. See McKibbin, J. M. Blacker, C. See Rose, A. R. Blackett, P. M. S., cosmic rays, I, 235.

and Lovell, A. C. B., radio echoes and cosmic-ray showers, I, 146. Blackfan, K. D. See Shohl, A. T.

Blackford, L. M., and Parker, F. P. pulmonary stenosis with bundle branch block, III, 972. Blackman, G. E., and Templeman, W. G.,

interaction of light intensity and nitrogen supply in growth and metabolism of grasses and clover (Trifolium repens). ĬV., III, 59.

Blackwood, W. See Robson, S. Blaedel, W. J., and Blacet, F. E., colorimetric determination of formaldehyde in presence of other aldehydes, II, 307. Sec also Blacet, F. E.

Blair, A. P., Hargreaves, C. C., and Chen, K. K., susceptibility of spadefoot toad and tree frog to ouabain, cymarin, and coumingine hydrochloride, III, 695.

Blair, D., vertebral injuries in convulsion therapy and epilepsy, III, 179. Treatment of epilepsy, III, 665.
Blair, G. W. S., determination of viscosity

of human milks and prenatal secretions, III, 468.

Folley, S. J., Coppen, F. M. V., and Malpress, F. H., rheological properties of bovine cervical secretions during œstrous cycle, III, 509.

Blair, G. Y. See Scofield, C. S.

Blaisdell, B. E., physical properties of fluid interfaces of large radius of curvature. I .- III., I, 256.

Blaisdell, J. S., Gardner, W. U., and Strong, L. C., adrenal glands of mice from strains with different susceptibilities to mammary cancer, III, 887.

Blake, F. G. See Sadusk, J. F.Blakely, L. See Fisk, R. T.

Blakemore, F., actiology and morbid anatomy of fowl paralysis (neurolymphomatosis), III, 345.

Elliott, S. D., and Hart-Mercer, J.,

suppurative polyarthritis (joint-ill) in lambs [rôle of streptococci], III, 310.

Blakeslee, G. A., nervous and mental diseases of soldiers during active warfare, III, 860.

Blalock, A., Mason, M. F., Morgan, H. J., and Riven, S. S., myasthenia gravis and tumours of thymic region, III, 86. See also Dawson, J.  $\mathring{R}$ ., and Mason, M. F.

Blanchard, A. A., and Magnusson, F. S., manganese nitrosyl cyanide salts, I, 482.

Blanchard, A. J., pathology of glomus tumours, III, 496.
Blanchard, E. L., and Harper, H. A., dark adaptation and vitamin-A status, III, 91.

See also Jeans, P. C.

Blanchard, E. R. See Andrews, D. H. Blanchard, K. C., isolation of p-amino-benzoic acid from yeast, III, 1063. Blanchard, M. H. See Cohn, E. J.

Blandau, R. J., Boling, J. L., and Young, W. C., length of heat in albino rat as determined by copulatory response,

III, 673. and Jordan, E. S., effect of delayed fertilisation on development of rat ovum, III, 639. Artificial insemination of white rat, III, 764.

See also Boling, J. L., Soderwall, A. L.,

and Young, W. C.

Blank, F. See Frey-Wyssling, A.

Blank, I. H. See Lane, C. G.

Blank, L. M., response of Phymatotrichum omnivorum to trace elements, III, 798.

Blankstein, S. S., transitory myopia: a complication of sulphanilamide therapy, III, 865

Blanton, W. B. See Gardner, E. Blaschko, H., amine oxidase in Sepia officinalis, III, 469.

Blaszó, S., sulphur metabolism of growing organism, III, 33.

and Kramar, J., arterial hypertension in

sucklings, III, 337.

Blatherwick, N. R., Bradshaw, P. J.,
Ewing, M. E., and Sawyer, S. D., glucose and fructose metabolism in rats, III, 212.

See also Ewing, M. E., and Larson, H. W. Blatt, A. H. See Anchel, (Miss) M.

Blatt, M. L., Harris, E. H., Jacobs, H. M., and Zeldes, M., evaluation of enzymetreated milk in infant feeding, III, 371. Jacobs, H. M., Murphy, J. B., and Zeldes, M., addition of homogenised vegetables to diet of young infant, III, 371.

See also Cohen, R.
Blattenberger, J. W. See Morton, A. A.
Blatz, I. H. See Braestrnp, C. B.

Blazzó, A. See Dubrauszky, V.
Bleakney, W. See Cummings, C. S.
Bleaney, B., and Hull, R. A., effective susceptibility of a paramagnetic powder, I, 368. Determination of vapour pressure curve of liquid helium below 1.6° K. using a magnetic thermometer, I, 368.

Blechmann, M. See Tetu, I. Bleil, D. F., and Hause, C. D., insulated vacuum leads, I, 391.

Blewett, G., laryngocele, III, 66.

Blewett, M. See Fraenkel, G.
Blicke, F. F., development of organic chemicals for therapeutic use, III,

and Otsuki, C., 1-alkyl 2-dialkylaminoalkyl 3-aminophthalates as local anæsthetics, II, 291.

Parke, H. C., and Jenner, E. L., local anæsthetics in naphthalene series, II,

and Safir, S. R., tert.-arsines and arsine oxides. II., II, 155.

and Warzynski, R. J., hydroxy- and methoxy-phenylanthrones. III., II,

Blickensdorfer, P., and Bone, J. A., action of adrenaline injected into pericardial sac, III, 185.

Blinks, L. R., and Pickett, M. J., effect of oxidants and reductants on bioelectric potential of Nitella, III, 46.

Blish, M.J. See Kneen, E.

Bliss, C. I., toxicity of poisons applied jointly, III, 42. Biological assay, III, 543. Biometry in service of biological assay, III, 620.

and Rose, C. L., assay of parathyroid extract from scrum-calcium of dogs, III, 94.

Bliss, E. A. See Long, P. H. Bliss, H. L. See Gilliland, E. R.

Bliss, S., increased excretion of urinary ammonia in the dog following intravenous injection of both natural and

unnatural forms of amino-acids, III, 288. Blitzer, L., excitation temperature of solar reversing layer from CN (3883 A.), I, 319. Blix, G., glycoproteins, III, 367. Electro-

phoresis of lipin-free blood serum, III, Nitrogenous constituents of kephalin, III, 588.

Tiselius, A., and Svensson, H., lipins and polysaccharides in electrophoretically separated blood serum-proteins, III, 386.

Blizniukov, V. I. See Valjaschko, N. A. Bloch, E. See Sobotka, H.

Bloch, F., resonance scattering of protons and neutrons on helium, I, I42.

Bloch, H. S. See Meyer, K.

Bloch, K., and Schoenheimer, R., biological precursors of creatine, III, 523. Schoenheimer, R., and Rittenberg, D., rate of formation and disappearance of body-creatine in normal animals, III, 523

Bloch, L., acute ulcerative esophagitis, III, 198.

Bloch, S., implantation of mouse egg, III,

Bloch-Michel, H. See May, E.

Blochintzev, D., spectra of fluorescence and absorption of complex molecules, I, 150. Block, H. W., and Mason, J. P., catalytic dehydration of  $\beta$ -morpholinoethanol, II,

Block, R. J., Bolling, D., and Kondritzer, A. A., micro-determination of leucine, isoleucine, and valine, III, 716.

Block, W. D., and Buchanan, O. H., microdetermination of gold in biological fluids, III, 236.

-Buchanan, O. H., and Freyberg, R. H., serum lipins in rheumatoid arthritis and obstructive jaundice, III, 967. See also Freyberg, R. H.

Blodgett, K. B., silica gauge for measuring thickness by means of interference colours, I, 130.

Blonstein, M. See Levitt, J. M.
Blood, F. R., and Lewis, H. B., metabolism
of sulphur. XXIX. S-Carboxymethylcysteine. XXX. Thiourea, III, 603.

Bloom, D., hereditary lymphædema associated with ptosis of eyelid, III, 660.

Bloom, E. S. See Adkins, H. Bloom, M. A. See Bloom, W.

Bloom, W., and Bloom, M. A., calcification of developing bones in embryonic and new-born rats, III, 241.

See also McLean, F. C.

Bloomfield, A. L., Chen, C. K., and French, L. R., basal gastric secretion as clinical test of gastric function with reference to peptic ulcer, III, 199.

Bloomfield, J. J., preliminary survey of industrial hygiene problem in United

States, III, 298.
Bloor, W. R., and Bullen, S. S., determination of adrenaline in blood, III, 572. See also Hodge, H. C.

Blotner, H., blood- and urine-chlorides in 22 cases with diabetes insipidus, III, 1008.

and Cutler, E. C., thyroidectomy in diabetes insipidus, III, 1008.

Blount, R. F., vasopressin secretion by cells of hypophyseal floor of diencephalon, III, 1008.

Blum, H. F., photosensitivity due to sulphanilamide, III, 786.

Blum, I. A. See Mokruschin, S. G. Blum, M. F., sunlight and cancer of skin. III, 592.

Blumberg, H., and Gardner, R. E., adenomatous stomach lesion of the rat associated with heavy Cysticercus fasciolaris infestation, III, 280.

Blumberg, N. See Doane, J. C. Blume-Westerberg, G., nitrogen, calcium,

and phosphorus metabolism of 7-monthsold child, III, 32.

Blumenthal, F. See Sheldon, J. M. Blumenthal, H. T., organismal differentials: effects on distribution of leucocytes in circulating blood, III, 824. Blumenthal, R. See Gerlough, T. D.

Blumer, S., biology of *Ustilago violacea* (Pers.), Fuck. I. Nutritional and cultural

conditions; action of saponin, III, 48.

Blumgart, H. L., Schlesinger, M. J., and
Zoll, P. M., coronary occlusions with shock, III, 973.

See also Waller, J. V. Blumstein, G. I. See Tuft, L. Blumn, C. T., Howell, C. E., and Caldwell, R. W., calcium, inorganic phosphorus, and magnesium contents of serum of young horses, III, 76.

Boatner, C. H., and Efron, B. G., purification of extracts of grass pollens, III,

Efron, B. G., and Dorfman, R. I., preparation of purified house dust extract, III, 633.

Efron, B. G., and Pabst, M. R., purified extracts of ragweed pollen, III, 313.

See also Efron, B. G., and Pabst, M. R. Bobalek, E. G. See O'Brien, S. J.

Bobischev, V. I., Djakova, M. K., and Lozovoi, A. V., velocity of reduction of phenols. I. Monohydric phenols, II, 94. Bobko, E. V., boron content of plants, III,

and Savvina, A. G., rôle of molybdenum in development of plants, III, 540.

Bobrański, B., and Eker, I. M., preparation of sulphapyridine, II, 332.

Bobrovnik, D. P. See Budnikov, P. P.

Boeciarelli, D. See Ageno, M. Bochvala, M. See Jermolenko, N. F. Bockelberg, U. von. See Hailer, E.

Bodamer, G, W. See Johnson, J, R. Bodansky, A., determination of sulphanilamide, sulphapyridine, and sulphathiazole, III, 1043.

Bodansky, M., and Duff, V. B., effects of parathyroid deficiency and calcium and phosphorus of diet on pregnant rats, III, 517. Relation of parathyroid function and diet to mineral composition of bones in rats at conclusion of pregnancy, III, 1003.

Duff, V. B., and McKinney, M. G., formation of creatinine from glycocyamine in liver; intestinal excretion and bacterial decomposition of creatine

and creatinine, III, 899. See also Levine, H.

Bodansky, O. See Lewis, J. M.

Bodian, D., vertebrate synapse, III, 429. Bodine, J. H., and Carlson, L. D., effects of

temperature on activity of activators of protyrosinase, III, 226. Enzymes in ontogenesis. XIV. Action of proteins on activators of protyrosinase, III, 623.

See also Allen, T. H.

Bodnár, J., and Nagy, V. L., determination of nicotine in human material after death, III, 383.

Szép, O., and Cieleszky, V., micro-determination of arsenic in biological substances, III, 1087.

Bodrova, N. V., innervation of heart of Rana esculenta. II. Atrium and sinus venosus. III. Ventricle, III, 170. Effect of high frequency waves on frog's heart, III, 840.

Böcker, O. E., comparison of Pirquet test with Petruschky's modification, III, 809. Beggild, J. K., Brostrem, K. J., and Lauritsen, T., range and straggling of fission fragments, I, 189.

See also Bohr, N.

Boehm, G., photodynamic action of lacto-flavin, III, 777.

Böhmer, K., action of various drugs on blood-alcohol curve, III, 381. Thallium poisoning, III, 382, 383.

Boehncke, H., icterus gravis, III, 364. Boelter, M. D. D., and Greenberg, D. M., calcium deficiency in growing rats. I. and II., III, 372.

See also Kleiber, M. Boemke, F., origin of coagulation bands in

striped muscle, III, 340.

Boerner, F., Flosdorf, E. W., and Lukens, M., stabilisation of high-vacuum-dried guinea-pig complement before drying and after restoration with water, III,

Jones, C. A., and Lukens, M., microscopic and macroscopic flocculation tests in diagnosis of syphilis, III, 1071. 555.

and Lukens, M., use of egg-albumin as protective protein\_in spinal fluid Wassermann test, III, 566.

Börnstein, IV. S., cortical representation of taste in man and monkey. I. and II., III, 255.

Boersch, H., Fresnel diffraction in electron microscope, I, 453. Fresnel electron diffraction, I, 453.

Boettcher, A., determination of refractive index of iron by the Kundt prism method. I, 34.

Bötticher, R. See Luttkus, K.

Bogaert, L. van, anatomical and clinical studies of complex hyperkinetic syndromes. II. Heredo-familial torticollis with tremor, III, 986.

Maere, M., and De Smedt, E., familial types of Alzheimer's disease with early

onset, III, 993.

See also De Morsier, G., and Mylle, G. Bogatscheva, K. I., 4:6-diamino-3-methoxytolucne, II, 321.

Bogdanov, O. S., and Filanovski, M. S., adhesion of mineral particles to air bubbles, I, 410.

Bogdanova, L. A. See Feofilaktov, V. V. Bogdanova, O. K. See Balandin, A. A. Bogdaschevskaja, O. See Kuzin, A.

Bogert, M. T. See Cassaday, (Miss) S. A., Jitkov, O. N., Levitz, M., Orcutt, (Miss) R. M., and Plentl, A. A.

Boggild, J. K. See Brostrom, K. J. Bognibov, V. A. See Parschin, A. N. Bogomoletz, A. A., shock in blood trans-

fusion, III, 829.

Bograchov, E. See Bergmann, E. Bogue, R., and Hodge, E. T., cascade andesites of Oregon, I, 182.

Bogusevitsch, L. N. See Voroshcov, N. N.,

Boguslavskaja, B. E., and Ottamanovskaja, O. M., titanium sulphate. III. Preparation. IV. Hydrolysis, I, 87. Bohlender, G. P., Rosenbaum, W. M., and

Sage, E. C., antepartum use of vitamin-K, 111, 726.

Bohls, S. W., Irons, J. V., and De Shazo, F., cultivation of relapsing fever spiro-chætes in embryo chick, III, 628.

Bohn, G., phototropism in aquatic animals placed in narrow quartz or glass tubes, III, 450.

Bohner, C. B., Sheldon, J. M., and Trenis. J. W., sensitivity to gum acacia; report of 10 cases of asthma in printers, 111,

Bohr, D. F. See Bean, J. W.

Bohr, N., scattering and stopping of fission fragments, I, 3. Successive transformations in nuclear fission, I, 144. Velocity-range relation for fission fragments, I, 189. Mechanism of deuteron-induced fission, I, 360.

Bøggild, J. K., Brostrom, K. J., and Lauritsen, T., velocity-range relation for fission fragments, I, 144.

Bohrod, M. G., pleural mesothelioma with unusual rate of growth, III, 591. Boisvert, P. L., fibrinolysin test in rheu-

matic fever, III, 632.

and Fousek, M. D., isolation and identification of meningococci and gonococci, III, 802.

Boivin, A., and Delaunay, A., comparative behaviour of two toxins of B. Shiga to their corresponding antibodies, III, 929. Boki, G. B. See Berg, L. G.

Bokil, K. V., and Nargund, K. S., chaulmoogric acid series. III. Synthesis of dl-hydnocarpic acid, II, 251.

See also Mehta, B. S., Savkar, G. S., and Vyas, F. A.

Bolam, T. R., and Sim, W. S., influence of solvents on auto-oxidation of methyl linolcate, II, 160.
Boldyreff, W. N., and Thompson, O. E.,

permanent pancreatic fistula, III, 445. Bolin, D. IV. See Williams, J. K.

Bolin, F. M., and Vardiman, P. II. mapharsen for enterohepatitis of turkeys. III, 1054.

Boling, J. L., Blandau, R. J., Soderwall, A. L., and Young, W. C., growth of Granfian follicle and time of ovulation in albino rat, III, 673.

See also Blandau, R. J., and Young, W. C. Bolland, J. L., kinetics of polymerisation of isoprene on sodium surfaces, I, 382.

Bollen, IV. B. See Gjullin, C. M. Bolliger, A., and Canny, A. J., renal injury

in Trichosurus vulpecula produced by œstrogens, III, 356.

Bolling, D. See Block, R. J.
Bollman, J. L., Butt, H. R., and Snell,
A. M., liver and vitamin-K, III, 288. See also Butt, H. R., and Flock, E. V.

Bolschakov, P., and Etherman, A., compressibility of hydrogen-nitrogenmethane mixtures at high pressures, I,

and Lebedeva, E. S., liquid-vapour equilibrium in the system ammoniamethane-nitrogen at high pressures, I,

See also Kritschevski, I. R.

Bombelli, A. A., action of iodine on potassium ferrieyanide solution, I, 88.

Bomford, R. R., effect of bilirubin on erythropoiesis, III, 243. and Rhoads, C. P., refractory anamia,

III, 960.

Bomskov, C., Wiesiollek, B., and Doht, IV., hormone content of ovaries of whales, III, 873.

Bond, G., symbiosis of leguminous plants and nodule bacteria. I. Respiration and extent of utilisation of host carbohydrates by nodule bacteria, III, 941.

See also Asprey, G. F.

Bond, R. L. See Simons, J. II. Bondurant, C. P., and Campbell, C., adrenal cortex extracts and bromide intoxication, III, 615.

Bone, J. A. See Blickensdorfer, P. Bonham, D. T., diverticula of cardiac end of stomach, III, 155.

Bonham, R. F., value of helium as adjunct

in general anæsthesia, III, 218.

Bonham-Carter, R. E. See Barsby, B. E.
Boni, I. See De Caro, L., and Fornaroli, P. Bonino, G. B., concept of co-ordination. II. Constitution of ClO<sub>2</sub>' ion, I, 75.

Bonisteel, W. J. See O'Brien, F. J. Bonkáló, A., mesencephalic nuclei in crossed cerebellar atrophy, III, 985.

Bonner, D. M., Haagen-Smit, A. J., and Went, A. F., leaf-growth hormones. I. III, 403.

Bonner, J., and Greene, J., relation of vitamin-B1 to growth of green plants, III, 540.

See also Hamner, K. C.

Bonner, J. F. See Hodge, H. C. Bonner, L. G. See Cleaves, A. P.

Bonner, P. See Hunscher, H. A. Bonner, T. W., energy of neutrons from deuteron-deuterium reaction, I, 187. See also Bennett, IV. E.

Bonney, C. W., primary malignant tumours of spleen with report of a case of lymphosarcoma, III, 282.

Bonnin, J. G., traumatic asphyxia, III, 981. Bonnycastle, D. D., and Ferguson, J. K. W., action of pitocin and adrenaline on segments of rabbit uterus, III, 674.

Bonser, G. M., and Wainman, L. M., experimental study of antagonism between one malignant tumour and appearance of another in same animal, III. 451.

Bonynge, C. W. See Butt, E. M.

Booker, H., Evans, L. K., and Gillam, A. E., effect of molecular environment on absorption spectra of organic compounds in solution. I. Conjugated dienes, I, 27. Booth, A. N. See Wegner, M. I.

Booth, E. T. See Grosse, A. V.

Booth, F., and Wilson, A. H., scattering of neutral mesons, I, 4.

Booth, M., fragility of erythrocytes as affected by anoxia, inhalation of carbon dioxide, and insulin hypoglycæmia, III,

Booth, V. H., Mapson, L. W., and Moore, T., vegetables as food, III, 895.

Boothby, W. M., Benson, O. O., and Lovelace, W. R., emergency oxygen unit for use in parachute escape or in case of failure of regular oxygen supply at high altitude, III, 84.

See also Hinshaw, H. C., and Walsh, M. N.

Boquet, P. See Cesari, E. Boreskov, G. K., and Pligunov, V. P., oxidation of sulphur dioxide at activated vanadium catalysts. Effect of alkali-metal salts and silicic acid on catalytic activity of vanadium pentoxide, I, 120.

and Ruderman, E. E., rate of sorption of sulphur dioxide by vanadium

pentoxide, I, 409.

Borisova, T., and Proskurnin, M., dependence of capacity of mercury electrode on frequency of alternating current, I, 469. Borisova, Z. L. See Korshuev, A. S. Bork, A. See Balandin, A. A.

Born, M., diffuse reflexion of X-rays, I, 402. and Fürth, R., stability of crystal lattices. III., I, 7.
and Misra, R. D., stability of crystal lattices. IV., I, 7.
Borodina, O. J., oxygenase properties of

carotene, III, 622.

Borovik, S. A., and Tschentzov, I. G., exsium in pegamites of Kalbino granites of East Kazakhstan, I, 183.

Borozdina, A. See Schmuk, A.

Borozkovski, S. E., effect of ordinary and chemically preserved ensilage on metabolism of animal organism. V., III, 682.

Borshkovski, S. E., Michaileva, V. V., Kolomitschenko, M. A., and Gutnitzkaja, P. M., preserved oak leaves as food in early breeding of Antheræa pernyi, Guér., caterpillars, III, 682.
Borson, H. J., thiochrome reaction in

thiamin deficiency, III, 116.

See also Stockholm, M.

Borsook, H., and Dubnoff, J. W., formation of glycocyamine in animal tissues, III, 524.

Dubnoff, J. W., Lilly, J. C., and Marriott, W., formation of glycocyamine in man and its urinary excretion, III, 524. See also Dubnoff, J. W.

Borthwick, H. A., and Parker, M. W. photoperiodic responses of several varieties of soya beans, III, 539. See also Parker, M. W.

Bortnick, A. R. See Hobbs, J. E.
Borzjak, P. G., relation between conductivity and emission characteristics of easium oxide cathodes, I, 322.

Bosazza, V. L., occurrence of vanadium and molybdenum in clays, I, 184. Coarsely-crystalline kaolin mineral in South African fireclays, I, 492. Rarer constituents of South African fireclays, I, 492. Textures of clays, I, 492. Bosch Arana, G. See under Arana, G. B.

Bose, D. M., and Chowdhry, (Miss) B., origin and nature of heavy ionisation particles detected on photographic plates exposed to cosmic rays, I, 145. Photographic method of estimating mass of the mesotron, I, 396.

Bose, P. K., and Dutt, P., constitution of pedicinin, II, 18.

Boselli, A. See Gamna, C.

Bosse, M. D., effects of histaminase on

Shwartzman phenomenon, III, 936.
Bost, R. W., and Starnes, C. F., sulphur.
XVII. Synthesis of sulphathiophen, 2sulphanilamidothiophen, II, 332.

Bostick, W. H. See Herzog, G. Boston, F. K., and James, N. R., rectal hexobarbitono soluble, III, 464.

Boswell, D. W., familial dyspituitarism, III, 265.

Boswell, J. G., biological decomposition of cellulose, III, 471.

Bosworth, R. C. L., adsorption of hydrogen by an ideal metal, I, 463.

Bothe, W., small-angle single scattering of electrons, I, 438.

Botschvar, D. A. See Nekrassov, B. V.

Botsford, T. W. See Dunphy, J. E.

Botsztejn-Wyszewianska, A., treatment of dyspepsia in infants with apple-banana powder, III, 106.

Bott, P. A. See Landis,  $\mathcal{E}. M.$ Bottenberg, H., chest compresses, III, 847.
Botteron, D. G. See Marvel, C. S.
Bottomley, A. C. See Folley, S. J.
Botvinkin, O. K., vitreous state, I, 203.
Botvinkin, M. M., Morozova, E., and

Samsonova, G., synthesis of  $\beta$ -hydroxynorvaline, II, 188.

Prokofiev, M. A., and Zelinski, N. D., dehydration of hydroxy-amino-acids, II, 188.

Bouillenne, M. See Bouillenne, R. Bouillenne, R., and Bouillenne, M., factors

of initiation and growth of roots; rhizocaline, heteroauxins, amino-acids, and vitamin-B<sub>1</sub>, III, 60.

Boulin, R., Ullmann, M., Mallet, R., and Bour, H., protamine-zinc-insulin in treatment of diabetes mellitus, III, 438.

Bouman, H. D., and Creveld, S. van, feetal keratomalacia, III, 517.

Bouman, J. See De Jong, W. F.

Bound, M. See Rochester, G. D., and Rossi, B.

Bounoure, L., l'origine des cellules reproductrices et le problème de la lignée germinale [origin of reproductive cells; the germinal line], III, 408. Bour, H. See Boulin, R.

Bourdillon, J., diffusion of biologically active material, III, 636. Electrophoresis of influenzal A virus, III, 808.

and Lavietes, P. H., fate of sodium sulphate injected intravenously in man, III, 123.

and Lennette, E. H., electrophoresis of complement-fixing antigen of human influenza virus, III, 55. See also Lavietes, P. H.

Bourguignon, G. See Schiff-Wertheimer. Bourne, G., vitamin-C in cell physiology, III, 778.

Ross, J. P., and Wright, A. D., surgical treatment of angina pectoris, III, 78. See also Barnett,  $\S$ . A.

Bouton, C. M. See McAllister, S. H. Bouton, S. M., jun., cerebral air embolism and vital staining: contribution to experimental study of blood-brain barrier, III, 256.

Boutwell, R. K. See Schantz, E. J.
Bowden, F. P., polishing of solids and
mechanism of sliding on ice and snow, I, 104.

Bowden, S. See Locatelli, A. M. Bowditch, M., Drinker, C. K., Drinker, P., Haggard, H. H., and Hamilton, A., code for safe concentrations of common toxic substances used in industry, III, 43.

Bowen, C. V., and Smith, L. E., substituted amides, II, 61.

Bowen, J. A., intravenous urography in

upright position, III, 769. and Stites, J. R., pregnancy changes in urinary tract, their sequelæ and treat-

ment, III, 769. Bowen, N. L., singular points on crystallis-

ation curves of solid solutions, I, 371. Progressive metamorphism of siliceous limestone and dolomite, I, 435.

Bowen, R., allergic conjunctivitis, III, 810. Bower, A. G. See Vener, H. I.

Bower, R. S. See Fisher, E.

Bowers, R. E., and McKay, C. M., insect life without vitamin-A, III, 115.

Bowers, R. V. See Craddock, G. B. Bowie, M. A. See Rosenthal, O.

Bowling, G. A., Putnam, D. N., and Ross, R. H., age as factor influencing breeding

efficiency in a dairy herd, III, 577. Bowman, D. E., oxidation-reduction by

chorionic gonadotropic hormone, III, 360.

Morris, L. E., and Staey, J. R., tissueascorbic acid in hypophysectomised rats, III, 375.

Bowman, D. S., term values in V п and Mn п, I, 185.
Bowman, D. W. See Green, J. B.

Bowman, F. T., influence of early times of fruit removal on growth and composition of alternate-bearing sugar prune trees. III, 1082.

Bowman, H. D., diphtheria treated with sulphanilamide, III, 785. Bowman, J. E. See Shields, J. J.

Bowman, K. M. See Himwich, H. E., and Wortis, J.

Bowman, R. O., and Mottshaw, H. R., failure to find carcinogens in urine from patients with cancer, III, 887.

Box, W. M., spontaneous absorption of cataract, III, 748.

Boyce, F. F., therapeutic considerations in diseases of liver, III, 768. Acute appendicitis in middle and late life, III, 1017.

Boyd, E. See Harkins, W. D. Boyd, E. M., apparatus for multiple

estimations of cholesterol in oxidative micro-method, III, 63. Determination of phospholipin content of white blood cells, III, 834.

Clark, K. J., and Smith, A. E., intake of water by frogs during their reaction to pituitrin, III, 98.

Clarke, M. E., Clarke, E. L., and Segal, A. L., retention of water by pituitary extract in winter frogs, III, 575.

and Connell, W. F., essential unsaturated fatty acids in relief of the common cold, III, 462.

and Forde, J. D., nikethamide (coramine) and water balance, III, 219.

and Garand, N. D., inhibition of water loss in albino rats by pituitrin, III, 508. and Segal, A. L., effect of wide range of

doses of posterior pituitary extract on retention of body-water in frogs, III, 352.

Boyd, J. D., nerve supply of mammalian ductus arteriosus, III, 549. Sensory component of hypoglossal nerve in rabbit, III, 660. Clinical appraisal of growth in children, III, 823.

Boyd, L. J., and Scherf, D., electrocardiogram in acute emetine intoxication, III, 614.

See also McGavack, T. H., and Piccione, F. V.

Boyd, M. L., renal calculi in bedridden patients, III, 1021.

Boyd, R. W., pneumocystogram, III, 15. Boyd, T. E., and Patras, M. C., filling and output of the ventricles with phases of respiration, III, 972.

Boyd, W. C., critique of methods of classifying mankind, III, 240.

Conn, J. B., Gregg, D. C., Kistiakowsky, G. B., and Roberts, R. M., heat of antibody-antigen reaction, III, 710. Heat of serological reactions, III, 810.

Boyd, W. L. See Andberg, W. G., and Petersen, W. E. Boyden, E. A., volumetric analysis of human embryos of 10 and 12 somites, III, 318.

Boyer, L. B. See Rose, H., jun. Boyland, E., chemotherapy of cancer. IV. Aldehydes and derivatives, III,

Levi, A.A., Mawson, E.H., and Roe, E., metabolism of polycyclic compounds. IV. Production of dihydroxy-1:2:5:6dibenzanthracene from 1:2:5:6-dibenzanthracene, III, 290.

Boyle, A. J. See Willard, H. H. Boyle, P. E. See Howe, P. R.

Boyle, P. J., and Conway, E. J., potassium accumulation in muscle, III, 850.

Conway, E. J., Kane, F., and O'Reilly, H. L., interfibre spaces and fibre water

in frog muscle, III, 736. Boynton, E. P. See Hines, M.

Boys, F. See Lehman, E. P.

Bozarth, S. S., and Wolf, L. J., diphtheritic membrane, III, 802.

Bozler, E., analysis of excitatory and inhibitory effects of sympathetic nerve impulses and adrenaline on visceral smooth muscle, III, 861.

Bozorth, R. M., and Williams, H. J., torque on a ferromagnetic single crystal in a magnetic field, I, 328. See also Williams, H. J.

Brace, D. F. See Reid, L. C.

Brack, W., treatment of Raynaud's disease with benziminazoline, III, 82.

Bracken, M. M., bacteriological observations on pneumonia, III, 537. See also McLachlan, W. W. G.

Brackett, F. S. See Cole, P. A., and Kuper, J. B. H.

Bracuto, E. C., chemical composition of flesh of Argentine-bred domestic fowls, III, 738.

Bradbury, J. T., permanent after-effects following masculinisation of infantile female rat, III, 355.

See also Marx, L.

Bradbury, R. See Pinson, K. B. Bradel, S. See Miller, B. F.

Bradistilov, G., calculation of electrostatic potentials in fluorite lattice, I, 328. and Stranski, I. N., equilibrium form of fluorite crystal, I, 454.

Bradley, E. M., sex differentiation of chick and duck gonads in homoplastic and heteroplastic host graft combinations, III, 547.

Bradley, H. C., and Belfer, S., pancreatic enzymes and tissue metabolism, III, 137. Bradley, W. B., Eppson, H. F., and Beath, O. A., methylene-blue as antidote for poisoning by oat hay and other plants containing nitrates, III, 41.

and Ivy, A. C., excretion and determination of cinchophen in bile, III, 695.

See also Davis, M. W.

Bradshaw, P. J. See Blatherwick, N. R., and Larson, H. W. Bradshaw, T. E. T. See Emmens, C. W.

Bradsher, C. K., and Amore, S. T., aromatic cyclodehydration. IX. 9-Alkylphenanthrenes, II, 127.

and Burhans, A. S., aromatic cyclo-dehydration. VIII. 6-Methyl- and 5methyl-6-ethyl-chrysene, II, 218.

and Wert, R. W., aromatic cyclodehydration. VII. Phenanthrene, II, 8.

Bradstreet, R. B., effect of selenium on Kjeldahl digestion, II, 385.

Brady, T. G., adenine-deoxyriboside from thymus-nucleic acid, III, 1022.

Braestrup, C. B., and Blatz, L. H., lowvoltage contact Roentgen therapy, III,

Braestrup, P. W., and Chrom, S. A., roentgenographic changes in bones as

sign of scurvy, III, 120. Brager, A., dependence of the unit cube edge of TiC, TiN, and TiO on the radius of the metalloid atom, I, 246, Chemical bond in hard compounds. I., I, 401.

and Epelbaum, V., X-ray examination of vanadium nitride. II., I, 246.

and Shdanov, H., nature of chemical bond in graphite and boron nitride, I, 196.

See also Epelbaum, V.

Bragg, (Sir) W., extra spots of the Lauc photograph, I, 30. Diffuse spots in X-ray crystal photographs, I, 402. Brahdy, M. B. Scc Stern, M. S.

Brahic, J. See Rouslacroix, A.

Brahic-Veyron, J. See Reuslacroix, A. Brain, W. R., visual object-agnosia with special reference to Gestalt theory, III, 865.

Braley, A., intracellular bodies of conjunctival epithelial cells, III, 180.

Brambell, F. W. R., and Davis, D. H. S., normal occurrence, structure, and homology of prostate glands in adult female Mastomys erythroleucus, III, 1.

Bramley, A., theory of separation of isotopes, I, 224.

Brand, F. C. See Sperry, W. M. Brand, T. von. See Otto, G. F.

Brandt, K. See Runnström, J. Brandt, W., and Roper-Hall, H. T., actiology of cysts of developmental origin

in premaxillary region, III, 546. Branfield, C. R., and Behrmann, V. G. correlation of  $p_{\rm H}$  of arterial blood and urine as affected by changes in pulmonary ventilation, III, 848.

Branham, J. R., Shepherd, M., and Schuhmann, S., determination of carbon monoxide by combustion over platinum in presence of excess oxygen, I, 427.

Branham, S. E., meningococcus meningitis, III, 693.

Brant, J. H., and Sievers, D. C., semimicroand micro-Kjeldahl steam distillation unit, I, 179.

Brasseur, H., and De Rassenfosse, A., crystal structure of hydrated potassium chlorostannite, I, 155.

Bratton, A. C. See Marshall, E. K., jun. Braude, R., Foot, A. S., Henry, K. M., Kon, S. K., Thompson, S. Y., and Mead, T. H., vitamin-A studies with rats and pigs, III, 683.

Braun, A. D., decomposition of hexoses

to hydroxymethylfurfuraldehyde, II. 242.

and Konnova, R. K., basic catalysis of transformation and decomposition of monosaccharides. II. Epimerisation of arabinose by anions of weak acids in acid media, II, 313.

Braun, H., congenital duodenal stenosis in two-year-old child and in man of 49

years, III, 104.

Braun-Menendez, E., and Fasciolo, J. C., vaso-constrictor action of renal venous blood during acute ischæmia, III,

Fasciolo, J. C., Leloir, L. F., and Muffoz, J. M., pharmacology of hypertensin, III, 173.

See also Battro, A., Fasciolo, J. C., and

Leloir, L. F. Brauns, F. E., electrodialyser, I, 350.

Braunstein, A. E., and Azarch, R. M., transamination. XIII. Stereochemical selectivity of transamination in normal tissues and malignant tumours, III,

and Bitschkov, S. M., transamination. XIV. Cell-free enzymic model of ldehydrogenase amino-acid

aminase), III, 704.

and Kritzmann, M. G., catalytic function of amino- and keto-dicarboxylic acids in amino-nitrogen transfer between monocarboxylic substrates. X. Formation and decomposition of aminoacids by intermolecular transfer of amino-groups, III, 602.

Brawn, J. S., Heddle, R. D., and Gardner, J. A. F., ethanolysis of Western red cedar, Douglas fir, and Western hem-

lock, II, 227. See also Heddle, R. D.

Bray, C. W. See Wever, E. G.

Bray, S., skin eruption caused by X-ray therapy on endocrine glands, III, 45.

Bray, W. C. See Taube, H. Braz, G. I., and Jakubovitsch, A. J., reaction of arsenic trichloride with diazo-

methane, II, 355.

Breazeale, E. L., Greene, R. A., and Harding, H. B., comparison of Hinton, Kahn, Kline, and Mazzini tests for syphilis, III, 310. See also Greene, R. A.

Breazeale, F., structural viscosity in liquids and derivation of equations for flux of such liquids through tubes, I, 161.

Brech, F., changes of physical conditions in a piece of tungsten, I, 246.

Breck, S. See Gillespie, L. J.

Bredig, M. A., new group of isomorphous

compounds, A<sub>2</sub>XO<sub>4</sub>, I, 481. Breimer, C. W. See Stewart, W. H.

Breit, G., scattering matrix of radioactive states, I, 70. Breit, J. See Fardon, J. C.

Breitenecker, L., softening of lenticular nuclei in carbon monoxide poisoning, III, 342.

Breiter, H., Mills, R., Dwight, J., McKey, B., Armstrong, W., and Outhouse, J., utilisation of milk-calcium by adults, III, 891.

See also Kempster, E., and Mills, R. Breivik, O. N. See Whitmore, F. C.

Bremer, F., spontaneous electric activity of spinal cord, III, 429. Strychnine tetanus and neurone synchronisation, III,

Breneman, W. R., effectiveness of androgens during inanition in the chick, III, 355.

Brennecke, C. G., conductivity measurements on potassium halides, I, 159.

Brenner, M. See Ruzicka, L.

Brenner, W., acute hemolytic anæmia (Lederer), III, 324. Encephalography in childhood, III, 344. Prophylaxis of scarlet fever [with Gabritschewsky vaccine], III, 394.

Brescia, M. A., chylothorax, III, 847.

Breshneva, N. E., and Roginski, S. Z.

mechanism of catalytic reactions of halogens and their derivatives. I. Kinetics of catalytic displacement of hydrogen in benzene, I, 421.

Bresler, S. E., adsorption of acetylene on selective adsorbents, I, 108. ing action of supersonics, I, 481.

Judin, M., and Talmud, D., mechanical properties of monolayers obtained by two-dimensional polymerisation and condensation, I, 333. and Pochil, P. F., expanded state and

binary films, I, 333.

Breslin, L.J., Solway, L.J., and Eisen, D., aneurysms of pulmonary artery, III.

Breslow, D. S., and Hauser, C. R., condensations. XIV. Alkylation of ethyl acetoacetate by isopropyl acetate in presence of boron trifluoride, II, 4.

See also Hauser, C. R. Bresson, A. See Dodel, P.

Breu, W., and Zollner, S., significance of high positive T-wave, III, 79.

Breutel, E. See Hinsberg, K.

Brewer, A. K. See Lasnitzki, A.

Brewer, G., rôle of liver in depression of plasma-potassium level by adrenaline, 111, 572

Brewer, W. See Todhunter, E. N.

Brewster, E. S., action of benzedrine sulphate on orthostatic hypotension, III,

Brewster, R. Q., and Stevenson, G., chlorination of diphenyl ether; orientation in p-chlorodiphenyl ether, II. 222. See also Langham, IV.

Brianon, H. D. See Le Masurier, H. E. Brice, A. T. See Weymouth, F. W. Brick, R. M., and Williamson, M. A.,

deformation and recrystallisation of copper and brass; hardness, microstructure, and texture changes, I, 293.

Bricker, E. M. See Womack, N. A.

Brickman, L., Hawkins, W. L., and Hibbert, H., synthesis of veratroylacetaldehyde and influence of hydroxyl groups on reactivity of p-carbonyl group, ÚI, 136.

Brickwedde, F. G., upper limit of temperature, I, 96. Temperature scale; proposed change in definition, I, 177.

Brickwedde, L. H. See Vinal, G. W. Bridge, E. M., Cohen, M. I., and Scott, T. F. M., serum-protein concentration as guide to treatment of dehydration in diarrhœal diseases, III, 837.

Bridges, M. A., and Mattice, M. R., significance of urinary  $p_{\rm H}$ , III, 585.

Bridgman, P. W., second law of thermodynamics and irreversible processes, I, 161. Compressions and polymorphic transitions of 17 elements to 105 kg. per sq. cm., I, 459.

Brieger, H., massive treatment with vitamin- $D_2$  and - $D_3$  in 12 cases of summer rickets, III, 29. Effect of massive dosage of vitamin-D<sub>2</sub> and -D<sub>3</sub> in winter rickets and spasmophilia, III, 376.

Briem, H. J. See Wachholder, K.

Brierley,  $J_{\cdot,\cdot}$  selective value of genes and their combinations in Drosophila, III,

Briese, R. R., and Couch, J. F., mercuric chloride as preservative of cyanogenetic plants for chemical analysis, III, 944.

See also Couch, J. F.

Briggs, D. R., electrokinetics. XXIV. Electro-viscous effect. I. Systems of sodium gum arabic, I, 335.

See also Hankinson, C. L.

Briggs, F. See Bell, F. Briggs, G. E., photosynthesis in intermittent illumination, III, 939.

Briggs, G. M. See Hegsted, D. M. Briggs, L. H., and Wilson, (Miss) J. M.,

4:5-methylenedioxychrysene, II, 320. Briggs, R. A., and Taylor, H. S., dehydrogenation of n-heptane and cyclohexane

on cerium, vanadium, and thorium oxide catalysts, I, 478.
Briggs, R. W., kidney stones in Rana

pipiens tadpoles reared on spinach, III, 885.

Briggs, T. R., Conrad, C. C., Gregg, C. C., and Reed, IV. H., polyiodides of rubidium. II. System rubidium iodideiodine-water, I, 266.

Geigle, W. F., and Eaton, J. L., polyiodides of sodium. I. System sodium iodide-iodine-water, I, 266.

and Hubard, S. S., polyiodides of cæsium. III. System cæsium iodide-iodinewater, I, 337.

Bright, W. C. See Murphy, E. J., and Whitaker, M. D.

Brill, H. C., Webb, C. N., and Hakbedel, H. S., reactions of monoalkylanilines with  $\beta\beta$ -dichlorodiethyl ether; 4-phenylmorpholine, II, 206.

Brill, L. C., and Meissner, W. A., rôle of coronary artery disease in ætiology of auricular fibrillation, III, 842.

Brillouin, L., theory of the magnetron. I., 1, 444.

Brinch, O., significance of hypovitaminosis-C as an ætiological factor in paradontosis, III, 119.

Briner, E., interpretation of effect of diluting ozone on its action as an oxidation catalyst, I, 86. Ozone as oxidation catalyst; explanation of the favourable effect of dilution of the ozone based on the laws of adsorption, I, 171. Chemical syntheses by electric discharges, I, 304, 479.

and Hôter, H., chemical action of electric discharges. XVIII. Production of formaldehyde in a high- and low-frequency arc. XX. Synthesis of hydrogen cyanide. XXI. Variation of yield of hydrogen cyanide produced by means of high-frequency are with molecular size of the hydrocarbon, I, 53, 172, 304. Production of formaldehyde by means of electric arc, I,

and Perrottet, E., ultra-violet absorption and fluorescence of luminol at different  $p_{\rm H}$  values, I, 27. Wave-lengths of ultra-violet radiations capable of producing ozone and influence of pressure on this production. T. 86.

Briner, E., and Sguaitamatti, B., recovery of nitrous gases by adsorption. I. Adsorption of nitric oxide by silica gel, I, 37.

See also Perrottet, E., and Susz, B. P. Brines, J. K., Gibson, J. G., and Kunkel, P., blood volume in infants and children, IIÍ, 963.

Brinkhous, K. M., plasma-prothrombin; vitamin-K, III, 491.

and Warner, E. D., muscular dystrophy in biliary fistula dogs; possible relationship to vitamin-E deficiency, III, 340.

Brinkley, S. R., jun., instability of silver perchlorate, I, 123.

See also Crawford, B. L., jun.

Brinton, D. See Williams, D. Briscoe-Woolley, P. M. See Höber, R.

Bristow, R., injuries to peripheral nerves, III, 658.

British Standards Institution, densitycomposition tables for nitric acid, and aqueous solutions of hydrochloric acid, I, 407. Biological essay of vitamin- $D_3$  by the chick method, III, 30.

Britten, E. J., and Thompson, W. P., artificial synthesis of a 42-chromosome wheat, III, 817.

Britton, S. W., and Corey, E. L., pancreatic and cortico-adrenal involvement in earbohydrate regulation, III, 755. See also Corey, E. L.

Britton, W. S., form and function in sloth, III, 718.

Briuschkova, K. See Kursanov, A. L. Briusova, L. J., halogen derivatives of fenchone, and their transformations. II.

Briwa, K. E., and Sherman, H. C., calcium content of normal growing body at a given age, III, 517.

Brock, R. B., development of electrolytic analysis apparatus, I, 485.

Brockhausen, K., genetic studies on depressive involution psychoses, III, 995.

Brockman, L. See Kuskin, L. Brockmann, H., vitamin-D, and D, in treatment and prevention of rickets, III,

Brockway, L. O. See Eyster, E. E.

Brocq-Rousseu, D., Roussel, G., and Verge, J., intravenous histamine in horse and dog, III, 294. Broda, E. E., and Goodeve, C. F., carrier

weights of conjugated proteins, II, 343. Goodeve, C. F., and Lythgoe, R. J.. chromophore carrier weight in visual purple molecule, III, 11.

and Victor, E., cataphoretic mobility of visual purple, III, 181.

Brodal, A. See Jansen, J. Brode, W. R., and Hodge, E. S., influence of extraneous elements on line intensity.

III. Effect of anions, I, 138. See also Matthews, N. L., and Mowry,

Broders, A. C., Hargrave, R., and Meyer-ding, H. W., pathological features of soft tissue fibrosarcoma, III, 454.

See also Dublin, W. B., and McDonald,

Brodie, A. G., growth pattern of human head from third month to eighth year of life, III, 545. Sec also Engel, M. R.

Brodie, B. B. See Wallace, G. B. Brodski, A. E., and Radtschenko, N. P., isotopic composition of Arctic seas and ice, Î, 487.

Brodski, A. I., preparation of heavy water, I, 123. Separation of mixtures by

thermo-diffusion, I, 133.

Brodsky, I., and Waddy, G., cryptophthalmos or ablepharia, III, 318.

Brodsky, M. L. See Cohen, R. V. Brody, D. A., Werle, J. M., Meschan, I.,

and Quigley, J. P., intralumen pressures of digestive tract, especially pyloric region, III, 877.

See also Quigley, J. P., and Werle, J. M.Brody, E. B., influence of age, hypophysectomy, thyroidectomy, and thyroxine injection on simple reaction time in rats, III, 664.

Brody, H., and Goldman, S., relation of vitamin-A and cestrogens, III, 761.

Brock, A. J P., skeleton of a female pygmy. 11I, 548.

Broeker, A. G. See Maison, G. L.

Bromeis, H., migration velocity of tetanus toxin in rabbit and guinea-pig, III, 54. Influence of pregnancy and lactation on carcinoma of breast, III, 207. Distribution of tetanus toxin during its migration in animal body, III, 222.

Bronaugh, W., and Latimer, R. D., intestinal obstruction from inspissated

meconium, III, 512.

Bronfenbrenner, J., bacterial allergy, III, 232.

Hetler, D. M., Love, F. M., and Burnett, J. M., alimentary allergy and its prevention, III, 147.

See also Hershey, A. D.

Bronstein, A. P. See Engel, M. R. Brookhart, J. M., respiratory effects of localised faradic stimulation of medulla oblongata, III, 88.

Dey, F. L., and Ranson, S. W., abolition of mating behaviour by hypothalamic lesions in guinea pigs, III, 566.

Brooks, B. T., and Wilbert, G., reaction of cyclopentadiene and keten, II, 170.

Brooks, C. McC., and Gersh, I., innervation of hypophysis of rabbit and rat, III, 265. Correlation of physiological and cytological changes in neurohypophysis of rats with experimental diabetes insipidus, III, 265.

Brooks, C. S., and Hobbs, M. E., electric moments of substituted benzoic acids,

I, 29.

Brooks, H., diamagnetic anisotropy and electronic structure of aromatic molecules, I, 75. Ferromagnetic anisotropy and itinerant electron model, I, 141.

Brooks, H. J. See Andrews, J. S. Brooks, M. M., effects of carbon monoxide

and methylene-bluo on oxygen consumption of shark blood, III, 729. Brooks, S. C. See Cunningham, B.

Broom, R., South African Pleistocene apes, III, 488. Mandible of young Paranthropus child, III, 956.

Broome, F. K., and Sandstrom, W. M., reducing properties of l-sorbose, II, 236. See also Thornton, M. H.

Broster, L. R., feminism, III, 357.

Brostrøm, K. J., Bøggild, J. K., and Lauritsen, T., cloud-chamber studies of fission fragment tracks, I, 3. See also Bøggild, J. K., and Bohr, N.

Brotzge, G. See Fardon, J. C. Broude, L. M., and Kokoviehina, K. I., micro-titration of amino-acids and dipeptides in alcoholic solution by potassium hydroxide, II, 308.

Broussard, L., and Graves, A. C., second maximum of the Rossi curve, I, 442.

Brouwer, B., post-vaccinal encephalomyelitis, III, 231.

Brovar, V. J., post-embryonic growth of skeleton of Oryctologus cuniculus, III, 545. Browder, J., and Meyers, R., revaluation of treatment of head injuries, III, 87.

Browman, L. G., effect of optic enucleation on male albino rat, III, 9.

Brown, A. See Ford, N., and Silverthorne,

Brown, A. E. See Herrell, W. E. Brown, B. B. See Krueger, A. P.

Brown, B. H., and Lewis, H. B., metabolism of sulphur. XXVII. Distribution of sulphur in the ultrafiltrates of blood plasma. XXVIII. Cystine content and sulphur distribution of ultrafiltrates of plasma after administration of l-cystine and dl-methionine to rabbits, III, 525.

Brown, C. E., and Richter, I. M., medial coronary sclerosis in infancy, III, 651.

Brown, C. H. See Wadsworth, G. H. Brown, C. R. See Lisa, J. R.

Brown, D. J., thermal decomposition of benzoyl peroxide, I, 54.

Brown, E. See Fuller, R. H.

Brown, E. A., and Benotti, N., apparatus for pressure filtration, I, 391. See also Steacie, E. W. R.

Brown, E. E., capillary resistance in scarlet fever, III, 174.

and Wasson, V. P., capillary resistance in rheumatic children, III, 653.

Brown, E. G. See Owens, L. B. Brown, E. W. See Anderson, N. A.

Brown, F. A., and Ederstrom, H. E., dual control of black chromatophores of Crago, III, 956.

Brown, G. B., dimensions, I, 318. and Du Vigneaud, V., synthesis of

S-( $\beta$ -amino- $\beta$ -carboxyethyl)homocysteine, II, 122. Stereoisomeric forms of lanthionine, II, 355.

See also Du Vigneaud, V.

Brown, G. E. See Gilman, H. Brown, G. G. See Konz, P. R.

Brown, G. L., and Harvey, A. M., neuromuscular transmission in extrinsic muscles of eye, III, 427.

See also Gale, E. F.
Brown, G. M., and Maegraith, B. G., circulation in hypertensive rabbits, III,

423. Tyraminase activity in hypertensive animal, III, 654. Brown, G.O., Muether, R.O., Mezera, R.A., and Lø Gier, M., transmission of St. Louis encephalitis to hamster, III, 1075.

See also Muether, R. O. Brown, Harrison, temperature assignments of experimental thermal diffusion coefficients, I, 8.

Mitchell, J. J., and Fowler, R. D., mass spectrometer for isotope analysis, I, 485.

Brown, Herman, and Kolmer, J. A. [with Lynch, E. R., and Howard, M.], constitution of antigenic substance in alcoholic tissue extracts concerned in serum diagnosis of syphilis, III, 394.

Brown, H. A., and Mollison, P. L., transfusion of reconstituted dried serum, III,

Brown, H. C., hydrogen bridges and

isomerism, II, 184. Kharaseh, M. S., and Chao, T. H., reactions of atoms and free radicals in solution. 1. Substitution of hydrogen on an asymmetric carbon atom; chlorination of primary active amyl chloride, II, 117.

Brown, H. C. See also Kharasch, M. S., and Schlesinger, H. I.

Brown, H. P., and Austin, J. A., antimonial and thioantimonial derivatives of pyrocatechol, II, 359.

Brown, H. S. See Mitchell, J. J. Brown, H. W., and Otto, G. F., hæmoglobin and reticulocyte studies on hookworm- and malaria-infected children, III, 324. Differential leucocyte count associated with hookworm infection, III, 645. Brown, I. W. See Rnffin, J. M. Brown, J. B. See Frankel, J., Knouff,

R. A., and Matthews, N. L.

Brown, J. E., jun., lymphocytic choriomeningitis with isolation of virus, III, 808.

Brown, J. R., Essex, H. E., and Moersch, F. P., effect of  $\beta$ -erythroidine on metrazol convulsions, III, 665.

Brown, J. S., magnetite in sulphide ores, I, 227.

Brown, M. R., alcoholic polyneuritis, II, 741. Brown, R., rhythmic precipitation of pneumococcal soluble specific substances and antipneumococcal sera, III, 628.

Brown, R. A. See Emmett, A. D. Brown, R. B. See Eliason, E. L.

Brown, R. C., surface tension, I, 152. Energy associated with capillary rise, I,

Brown, R. F., and Daniels, F., oxygen

inhibition in photobromination of cinnamic acid, 1, 54.

See also Bartlett, P. D.

Brown, R. L. See Wolfrom, M. L. Brown, R. S. See Wegria, R. Brown, R. V., action of water moccasin venom on isolated frog heart, III, 840.

Brown, S., external jugular vein in American whites and negroes, III, 717.

Brown, S. C., β-ray energy of <sup>3</sup>II, I, 359. Brown, T. McP., and Harvey, A. M., spontaneous hypoglycæmia in chronic alcoholics, III, 970.

Brown, W. E., physiology of reproduction and investigation of sterility in female. III, 875.

and Lucas, G. H. W., ethyl n-propyl ether, III, 294.

Brown, W. F., jun., magnetic saturation, I, 29. Torsional frequencies of crystal specimens, I, 77. Ferromagnetic domains and the magnetisation curve, I, 151. Dislocations and magnetisation, I, 247. Effect of dislocations on magnetisation near saturation, I, 401.

Brown, W. G., and Bluestein, B., dehydration of 9-fluorenylcarbinol; synthesis of phenanthrene, II, 247.

and Letang, N. J., hydrogen exchange reactions of aromatic tert.-amines, II, 129.

See also Mnlliken, R. S.

Brown, W. H., sulphonamides, III, 693. Brown, W. L., anthocyanin pigment of the Hunt muscadine grape, 111, 151. Brown, W. O. See Paul, J. T. Brown, W. W. See Langstroth, G. O.

Browne, D. C., and McHardy, G., management of strychnine poisoning, III, 918.

Browne, J. S. L. See Karaty, S., Pattee.

C. J., Rose, B., and Venning, E. H. Browning, B. L. See Stillings, R. A. Brownlee, I. E. See Osgood, E. E.

Brownscombe, E. R. See Roberts, O. L. Broxon, J. W., geomagnetic character and cosmic-ray intensity pulses, I, 289, 315. Recurrence phenomena in cosmic-ray intensity, I, 315.

Broyer, T. C. See Hoagland, D. R., and Overstreet, R.

Broyles, E. N., treatment of laryngeal papillomata in children by local application of estrogenic hormone, III, 871. Brubach, H. F., Crisp, L. R., and Neal,

P. A., apparatus for administration of helium-oxygen mixtures, III, 218. Bruce, A. H., Parker, F. P., and Lewis,

G. T., hydrogen sulphide poisoning, III, 790.

Bruce, A. N., basis of temperament, III, 743.

Bruce, G. M., virus diseases and eye in childhood, III, 861.

Bruce, J. A., time and order of appearance of ossification centres and their development in skull of rabbit, III, 237.

Bruce, J. G., and Caswell, M., precipitin reactions in rheumatoid arthritis, III,

Bruce, W. F., carcinogenic hydrocarbons. IV. Bromination of hydrindene; briefer synthesis of cholanthrene. V. Comparison of intensity of fluorescenco of cholanthrene and its homologues, I, 98; II,

Brucer, M. See Robinson, S. C.
Bruch, H., obesity in childhood and endocrine treatment, III, 454. Obesity in relation to puberty, III, 1009.

Bruchsaler, F. S., vitamin-K and prenatal and postnatal prevention of hæmorrhagic disease in newborn infants, III, 646.

Bruck, M. See Neergaard, K. von. Brucksch, W. F., jun. See Andrews,

D. H.Brücke, E. T. von, Early, M., and Forbes,

A., recovery of responsiveness in motor and sensory fibres during relative re-fractory period, III, 740.

Brückmann, G., and Zondek, S. G., determination of non-hæmin iron, III, 407.

Brückner, R., symptom in ophthalmoplegic migraine, III, 864. Acid-soluble phosphate of lenses of various animals. ÎII. 864.

Bruetsch, IV. L. See O'Leary, P. A.

Bruger, M., and Chassin, M. R., cholesterol content of renal arteries and of thoracic aorta in relation to hypertension and vascular pathology, III, 978.

See also Flexner, J., Ludden, J. B., and Member, S.

Bruins, P. F., and Czarnecki, J. D., relation between structure and free energy of organic molecules, I, 152.

Brull, L., antidiuretic action of blood from dogs in thyroxine polyuria, III,

Brunn, E., allergic arthritis and myo-carditis, III, 1079.

Brunner, H., disturbances of function of ear after concussion of brain, III, 182.

Brunner, W., and Schläpfer, E., local application of sulphathiazole to wounds, III, 1047.

Brunnschweiler, E. See Baur, E.

Brunot, A. W., properties of hydrogen mixtures, I, 79.

Brunschwig, A., Clarke, T. H., Van Prohaska, J., and Schmitz, R. L., secretory depressant in achlorhydric gastric juice of patients with carcinoma of stomach, III, 444.

and Rasmussen, R. A., relation of diet to benign neoplasia (ulceropapillomas) of rat's stomach, III, 1026.

Brunschwig, A., Schmitz, R. L., and Clarke, T. H., intravital staining of malignant neoplasms in man by Evans-blue, III,

Schmitz, R. L., and Rasmussen, R. A. achlorhydria and gastric cancer, III,

Schmitz, R. L., and Slotin, L., secretion of chlorine ions in achlorhydric gastric juice: observations by means of radioactive chlorine, III, 876.

See also Rasmussen, R. A.

Brunstetter, B. C. Seo Mitchell, John W. Brunsting, L. A., and Sheard, C., dark adaptation in pityriasis rubra pilaris, III, 100Ô.

Brusilovskaja, D. A., formation of gallstones in vertebrates. I., III, 201.
Bruson, H. A., and MacMullen, C. W.

condensation of phenols with amines and

formaldehyde, II, 96.
Bryan, A. H., Turner, D. F., Huenemann,
R. L., and Lotwin, G., relation between plasma-and dietary ascorbic acid, III, 969.

Bryan, L., double gall bladder with distinct cystic ducts shown by roentgenogram, III, 155.

Bryan, W. L. See Mason, K. E. Bryan, W. R., Beard, D. W., and Beard, J. W., complement fixing capacity of rabbit-papilloma-virus protein, III, 369. and Shimkin, M. B., dose-response data obtained with carcinogenic hydrocarbons, III, 1024.

Bryant, A., artificial hearing aids, III, 183. Bryant, H. W. See Burger, A. Bryant, J., and Fairman, H. D., sodium evipan and sulphapyridine in tetanus, III, 35. Field experiences with sulphanilamide group of drugs in southern Sudan, III, 214.

Bryant, R. D., and Fleming, J. G., Veratrum viride in eclampsia, III, 294.

Bryant, S. A. See Campbell, W. G.
Bryant, W. M. D., optical crystallographic studies with the polarising microscope. III. Measurement of several types of selective dispersion in organic compounds, I, 197.

Mitchell, J., jun., and Smith, O. M., analytical procedures employing Karl Fischer reagent. V. Determination of water in presence of carbonyl compounds, II, 80.

See also Mitchell, J., jun.

Bryce, L. M. See Jakobowicz, R.

Bryson, A., and Dwyer, F. P., furfuraldoxime as a chelate group. I. Additive compounds with metallic salts. II. Palladium compounds with a-(syn)furfuraldoxime, II, 199.

Buch, F. L., humoral immunity in plants, III, 234.

Buch, K., calcium carbonate content of sea [water] with special reference to Baltic Sea, I, 180.

Buchan, A. E., and Jehu, O. J., three old hospital dietaries, III, 1030.

Buchanan, A. R., nystagmus and eye deviations in guinea-pigs with lesions in brain stem, III, 181. Circling in guineapigs with lesions in brain-stem, III, 565. Vestibular harmony and dysharmony in guinea-pigs with lesions in the cerebellum and brain-stem, III, 985.

Buchanan, E. P., chylous ascites, III, 106. Buchanan, J. A., and Ballweg, H., tryptophan reaction of cerebrospinal fluid in diagnosis of meningeal tuberculosis, III, Buchanan, J. M. See Solomon, A. K. Buchanan, O. H. See Block, W. D.

Bucharina, E. V. See Proskuriakov, N. I. Buchbinder, W. C., and Sugarman, H., direct measurements of blood pressure in auricular fibrillation, III, 80.

Buchdahl, R., negative-ion formation in iodine vapour by electron impacts, I,

Bucher, A., vitamin-B<sub>1</sub> treatment in pregnancy, III, 197.
Bucher, C. J. See Cantarow, A.

Bucher, N. L. R., and Geschickter, C. F., recovery of pregnanediol from urine, III,

Bucher, O., action of arsenic, colchicine, trypaflavin, and other substances on tissue cultures, III, 241.

Buchgalter, V. I. See Danilov, S. N.

Buchman, V. M. See Michailov, N. V.

Bucholtz, I., cellophane cover slips and a method for mounting, III, 483.

Buchwald, H., determination of bacterial content of vaccines with the Zeiss

nephelometer, III, 396. Buchwald, M. E., and Eadie, G. S., toxicity

of dilaudid injected intravenously into mice, III, 465.

Buck, J. S., and Baltzly, R., preparation of

sec. amines, II, 285. Removal of acyl groups, II, 287. See also Baltzly, R.

Buckingham, R. A., Massey, H. S. W., and Tibbs, S. R., self-consistent field for methane and its applications, I, 400. See also Massey, H. S. W.

Buckles, R. E. See Calvin, M. Bucy, P. C., and Weaver, T. A., paralysis of conjugate lateral movement of eyes in association with cerebellar abscess, III,

Budnikov, P. P., and Bobrovnik, D. P., formation and crystallisation of colloidal calcium sulphate, I, 11.

Budnitzkaja, E., catalysis of aldol con-densation of acetaldehyde by aminoacids, II, 351.

See also Kuzin, A.

Budnitzkaja, R. M. See Gorev, N. N. Bueding, E., Stein, M. H., and Wortis, H., formation of pyruvic acid following glucose ingestion in man, III, 379. See also Wortis, H.

Bühler, E., upper eyelid fold in Europeans, III, 548.

Bühler, F., endocrine therapy in hypertrophy of prostate, III, 443.

Bühler, K., topographical percussion of pulmonary apices, III, 847

Bulbring, E., and Whitteridge, D., adrenaline and nerve action potentials, III,

Buell, A., and Mettier, S. R., paroxysmal nocturnal hæmoglobinuria with hæmolytic anæmia (Marchiafava-Micheli syndrome), III, 832.

Buerger, M. J., correction of X-ray diffraction intensities for Lorentz and polarisation factors, I, 195. Crystal structure of gudmundite (FcSbS) and its bearing on existence field of arsenopyrite

structural type, I, 226.
Buerger, N. W., chalcocite problem, I, 227. Bürkle-de la Camp, H., blood transfusions

in war and use of stored blood, III, 162. Büttner, IV., and Millard, A., urinary prolan excretion after oral and parenteral administration, III, 580.

Buevskoi, A., depolymerised cellulose and

its hydrolysis, II, 316.

Buffum, W. P., and Feinberg, B., bronchial asthma in three pairs of identical twins. III, 425.

Bngel, H.S. See Scott, V. B. Buhs, R. P. See Scudi, J. V.

Bukantz, S. C. See Bullowa, J. G. M. Bukatsch, F., rôle of ascorbic acid in chloroplasts, III, 401.

Bukin, V. N., ascorbic acid from natural products, III, 893.

Bulankin, I. N., micellar changes in ageing gelatin sols and gels, I, 14. and Kaplan, V. A., disaggregating action

of proteolytic enzymes, III, 705.

Bulanov, P. A., and Rikovski, V., immunising value of blood clot of hyperimmunised

animals, III, 1078.

Bulanova, Z. V. See Lazarev, P. P.

Bulfamonte, J. C., blood transfusion syphilis, III, 965.

Bulger, H. A., and Johns, H. E., determin-

ation of plasma-uric acid, III, 838.

Bull, H. B., osmotic pressure of ovalbumin solutions, III, 300.

Bull, H. D. See McCay, J. B.

Bull, L. B., Murnane, D., Munch-Petersen, E., MacLean, J. D., and Clark, S. E. R., bovine mastitis. I. Studies on experimental herd, III, 475.

Bull, S., explorations in stereochemistry. XII. At. wt. of silver, I, 313. Diamond molecule, I, 324. Uniform atmospheric dispersion of rare gases, I, 324.

Bullard, F. M., Bartlett meteorite, Bell Co., Texas, I, 60.

Bullen, K. G., and Greene, B. L., incidence of pulmonary tuberculosis in schizophrenic patients following convulsive therapy, III, 990. metrazol

Bullowa, J. G. M., Bukantz, S. C., and De Gara, P. F., balance between capsular polysaccharide and antibody in relation to prognosis and therapy of pneumococcal pneumonia, III, 803.

Bunch, G. H., and Madden, L. E., abdominal arterial apoplexy (spontaneous rupture), III, 844.

Bundel, A. A. See Proskuriakov, N. I. Bunding, I. M., location of catalase in cell, III, 414.

Bunin, S. M., Klimov, A. I., and Umanski, M. M., X-ray analysis of a wolframite crystal, I, 490.

Bunjatjan, G. C., rôle of hydroxypurines in ascorbic acid metabolism, III, 898.

Bunkfeldt, R. See Krieger, C. H. Bunting, A. H. See James, W. O.

Bunting, R. W., diet and dental caries, III, 774.

Bunyan, J., envelope method of treating burns, III, 222.

Bunzell, H. H., vitamins in wheat germ, III, 942.

Burack, S., and Szanto, P. B., influence of sodium chloride crystallisation by cerebrospinal fluid, III, 256. See also Szanto, P. B.

Buraus, H., simplified solution for fourcomponent Jaenecke phase diagrams, I,

Burawoy, A., light absorption, resonance, and electron isomerism, I, 75. Conjugated systems and "resonance," I, 75. Light absorption of organic compounds. IX. Unsaturated carbonyl compounds and semicarbazones, I, 97.

Burbank, R. C. See Korenchevsky, V. Burbo, P. Z. See Ischkin, I. P. Burch, J. C. See Cleveland, R.

Burcik, E. J., Eyster, E. H., and Yost, D. M., vibration energy levels and specific heat of ethylene, I, 97.

Burckhardt, IV. See Schaaf, F. Burdick, H. O., does testosterone propionate inhibit ovulation?, III, 102. Volumeter for small organs, III, 820. and Gamon, E., response of preputial glands of female mouse to testosterone

propionate, III, 576.

and Konanz, E. J., effect of deoxycorticosterone acetate on early pregnancy, III, 572.

and Vedder, H., effect of stilbæstrol in early pregnancy, III, 579.

Burdick, M. D., system lime-ferric oxide-

silica, I, 85. Burdick, W. F., peptic ulcer in children, III, 444. Control and prevention of

common contagious diseases, III, 537. Burdon, K. L., stable trypsin solution, III,

Bureau, V., and Vilter, V., effect of colchicine on epithelial cells in axolotl, III, 241.

Bureck, P. See Ehrhardt, K.

Burg, A. B., and Schlesinger, H. I., metallo borohydrides. II. Beryllium borohydride, I, 123.

See also Schlesinger, H. I. Burgdorf, A. L. Seo Wheeler, K. M.

Burger, A., and Avakian, S., derivatives of

homoanisic acid, II, 64.

and Bryant, H. W., isosteric compounds.
III. tert.-Dibenzthienylamino-alcohols, II, 203.

See also Modlin, L. R., jun.Burger, G. N., influence of iron on benzidine and guaiacum tests for occult blood, III, 169.

Burger, M., continuous vacuum distillation,

Burger, R., and Wuhrmann, F., electrocardiographic analysis by means of vector diagram and electrical field, III, 559.

Burgess, J. F., nail polish dermatitis, III, 298. Treatment of lichen planus with vitamin-B complex, III, 373. "Surgical glove" dermatitis, III, 1055.

Burgin, J., Hearne, G., and Rust, F. F., derivatives of allylic chlorides; reactions of methallyl chloride involving the double linking, II, 158.

Burgoyne, J. H., two-phase equilibrium in binary and ternary systems. IV. Thermodynamic properties of propane, I, 84.

Burhans, A. S. See Bradsher, C. K. Burke, B. R., anatomical study of nasopharynx as a pathway to infra-carotid portion of petrous pyramid, III, 317.

Burke, G. L., corrosion of metals in tissues; tantalum, III, 41.

Burke, W. J. See Dulin, B. H., and Moskowitz, S.

Burke, W. M., determination of boron in volatile organic compounds using the Parr oxygen bomb, II, 80.

Burks, R., jun., and Adkins, H., equilibria between esters, hydrogen, and alcohols, II, 85.

Burky, E. L. See Woods, A. C. Burling, R. L., y-rays from sodium bom-

barded by protons, I, 441.
Burlingame, P. L., and Chandler, A. C., Moniliformis dubius (Acanthocephala) in albino rats, III, 472.

Burn, C. G. See Lowry, F. C.

Burn, J. H., and Withell, E. R., principle in raspberry leaves which relaxes uterine muscle, III, 1053.

Burnet, F. M., influenza virus infections of chick embryo by amniotic route. I., III, 396. Antibody production as example of protein synthesis in vivo, III, 936.

and Foley, M., influenza virus infections of chick embryo by amniotic route. III., III, 1075.

and Jackson, A. V., poliomyelitis. IV. Spread of poliomyelitis virus in cynomolgus monkeys with reference to infection by the pharyngeal-intestinal route, III, 396.

Burnett, J. M. See Bronfenbrenner, J.

Burnett, R. See Mullan, J.

Burnett, R. S., and Warkow, R. F., [determination of ] iodine in thyroid, III, 261.

Burney, D. E. See Adams, R. Burnham, H. H., inferior turbinate cavern-

ous tissue, III, 717.

Burnham, L. See Levine, P. Burns, J. M. See Scott, A. W.

Burns, IV., pump of small internal volume, III, 235.

Burnstein, C. See Kaufman, P.

Burntness, H. I., Koehler, A. E., and Saint, J. H., hyperinsulinism due to adenoma of islets of Langerhans, III,

Burpee, C. M., and Wilkes, W. A., treatment of pertussis with a soluble antigen

intranasally, III, 230. Burr, G. O. See Barnes, R. H., Kass, J. P., Myers, J., Myers, J. E., and Norris, F. A. Burr, H. S., Smith, G. M., and Strong, L. C.,

electrometric studies of tumours induced in mice by the external application of benzpyrene, III, 278.

Taffel, M., and Harvey, S. C., electrometric study of healing wound in man,

III, 1.

Burr, J. G., jun. See Thompson, A. F., jun. Burrett, J. B., and Scherf, D., clinical importance of small intracutaneous veins in human chest, III, 496.

Burrill, M. W., and Greene, R. R., vitamin-A and vaginal response to sex hormones in rat. I. Estrogens, III, 670. Liver and adrenal androgen of rat, III, 671. Androgen production in female rat, III, 671.

and Ivy, A. C., administration of rat thymus to pregnant rats and lack of effect in successive generation, III, 263. and Nelson, D., vitamin-A and vaginal response to sex hormones in rat.

II. Androgens, III, 670. See also Greene, P. R., and Wells, J. A. Burris, R. H., and Wilson, P. W., measures of respiratory activity with resting cells, III, 307.

See also Thorne, D. W.

Burroughs, E. W. See Hunt, C. H.

Burrows, H., spontaneous uterine and mammary tumours in rabbits, III, 112. Effect of progesterone on gonadotropic potency of rat's pituitary, III, 189. Decline in incidence of mammary cancer in mice of an inbred strain, III, 1026.

Burrows, M. G. T., and Stockmayer, W. H., poisoning of a palladium catalyst by carbon monoxide, I, 120.

Burrows, W., and Jordan, E. O., oxidationreduction potentials in Salmonella cultures. II. Characteristic potentials produced by members of suipestifer and

enteritidis groups, III, 143.

Burschtein, A. I., and Korenman, I. M., microchemical detection of nicotine

vapour in air, II, 276.

Burschtein, R., kinetics of para-ortho transformation of hydrogen on charcoal, I, 421.

Burstein, E., and Davidson, A. W., solvent effect on semiquinone redox equilibria, I, 469.

Burström, H., rôle of manganese in nitrate assimilation [by plants], III, 399. Catalysis of nitrate assimilation [in plants] by heavy metals, III, 400.

Burton, A. C. See Jeffers, W. A Burton, C. J. See Barnes, R. B.

Burton, H., p-hydroxylaminobenzenesulphonamido; preparation and di-morphism, II, 220.

McLeod, J. W., McLeod, T. S., and Mayr-Harting, A., relationships between respiratory activities of bacteria and their sensitiveness to sulphanilamide, p-hydroxylamino- and p-nitrobenzencsulphonamide, II, 130; III, 139.

Burton, M., Davis, T. W., Gordon, Alvin, and Taylor, H. A., photolysis of keten and structure of methylene, I, 382. See also May, L.

Burwell, C. S. Sec Eppinger, E. C

Burwell, R. L., jun. See Ipatieff, V. N Busatto, S., fatal quinol poisoning, 111, 221. Busby, G. F. See Andrews, E. D., and

Elliott, J.
Bush, J. D., severe generalised blastomycotic dermatitis [treatment with X-rays and iodide], III, 694.

Bushby, S. R. M., Buttle, G. A. H., and Whitby, L. E. H., small-scale filtration of citrated plasma, III, 75.

Kekwick, A., Marriott, H. L., and Whitby, L. E. H., survival of stored red cells after transfusion, III, 162.

Kekwick, A., and Whitby, L. E. H., determination of blood volume in plasma transfusion, III, 245.

Bushnell, L. D. See Foltz, V. D. Businger, A. See Ruggli, P. Busset, M. See Wenger, P.

Bussel, M. See Wenger, F.
Bussmann, G. See Karrer, P.
Buswell, A. M., Downing, J. R., and
Rodebush, W. H., infra-red absorption
studies. XI. NH-N and NH-O bonds, I, 26.

Gore, R. C., and Rodebush, W. H., effect of ions of the lyotropic series on reflexion in the 3  $\mu$ . region, I, 192.

Krebs, K. F., and Rodebush, W. H., infra-red absorption of proteins in the 3 μ. region. XII., I, 73.

See also Dunlop, E. C. Butler, A. M., and Cushman, M., ascorbic acid-like reducing substance in buffy layer of centrifuged oxalated blood, III, 730.

See also Talbot, N. B.

Butler, C. L. See Renfrew, (Miss) A. G. Butler, E. C. B. See Ewins, A. J. Butler, G. C., Harington, C. R., and Yuill,

M. E. [with Miles, A. A.], synthetic immunochemistry. V. Antisera against aspirin-protein complexes, III, 56.

Butler, J. A. V., hydrogen overvoltage, I, 269. Solubility as a criterion of purity of proteins. I. Application of phase rule to solubility of proteins. II. Solubility curves and purity of chymotrypsinogen, III, 705.

Butler, M. F., and Nadler, S. B., possible source of error in determination of sulphapyridine and sulphanilamide, III, 605.

Sec also Chamberlain, C. T.

Butler, R. D., and Singewald, O. D., zonal mineralisation and silicification in Horseshoe and Sacramento districts, Colorado, I, 183.

Butler, R. E. See Isbell, H., and Sebrell, W.H.

Butler, T. C., Dickison, H. L., Govier, W. M., Greer, C. M., and Lamson, P. D., sulphanilamide and its derivatives on reaction of mice to anæsthetics, III, 913. Butovskaja, V. A. See Scharov, V. S.

Butt, C., thermostatic control, I, 58. Butt, E. M., Bonynge, C. W., and Joyce,

R. L., demonstration of capsules about hæmolytic streptococci with India ink or azo-blue, III, 143.

Butt, H. R., Allen, E. V., and Bollman, J. L., preparation from spoiled sweet clover [3:3'-methylenebis-(4-hydroxy-

coumarin) | which prolongs coagulation and prothrombin time of blood, III, 967

and Leang, W. V., diseases of nutrition, III, 517.

See also Bollman, J. L., and Weir, J. F.Butt, W. G., and Alber, H. K., systematic qualitative organic micro-analysis; comparative study of procedures of micro-extraction, II, 156.

Buttgenbach, H., quartz crystal with base from Nil St. Vincent, I, 60. Neptunite

Buttle, G. A. H., Kekwick, A., and Schweitzer, A., blood substitutes in acute hæmorrhage, III, 245. See also Bushby, S. R. M.

Butts, J. S., and Sinnhuber, R. O., amino-acid metabolism. VI. Metabolism of dl-valine and dl-isovaline in rats. VII.

Metabolism of l(+)-arginine and dllysine in rats, III, 686, 899.

Sinnhuber, R. O., and Dunn, M. S.,
effect of l(-)-tyrosine on liverglycogen of rat, III, 1018.

Buxton, P. A., prevention and treatment of parasitic diseases; louse, III, 462.
Louse [action of A.L.63], III, 612.
Buy, J. S. See Tendeloo, H. J. C.

Buzàgh, A., structure of adsorption layers, I, 108.

Byard, A. G., benzene formula-"resonance and mesomerism," I, 75.

Byer, J., and Harpuder, K., sensitising effect of thiamin for acetylcholine, III, 216.

Byers, A. R., geology of Nighthauk Peninsular gold mine, I, 182.

Byers, D.J. See Smith, L.I.Byers, H.G. See Williams, K.T.

Byers, R. K., electroencephalography, III,

Byrom, F. B. See Wilson, C. Byron, C. S. See Wishnofsky, M.

Bywaters, E. G. L., and Beall, D., crush injuries with impairment of renal function, III, 448. See also Beall, D.

Cabrera, B., changes in reflex medullary excitability after severance from encephalon, III, 43I.

Cacciapuoti, B. N. See Ageno, M., and Bernardini, G.

Cadbury, W. E., jun., Meldrum, W. B., and Lueasse, W. W., decahydrated mixed crystals of sodium sulphate and sodium chromate, I, 468. See also Meldrum, W. B.

Cadden, J. F. spatial configuration and preparation of canavanine, II, 244.

Cady, H. P., and Rarick, M. J., precision method for determination of mol. wt., I, 349.

Cady, W. M., and Tomboulian, D. H., l-emission bands of sodium, magnesium, and aluminium, I, 185.

See also Tomboulian, D. H.

Caesar, G. V., and Cushing, M. L., starch molecule, I, 327.

Cahill, IV. M., urinary excretion of thiamin on high-fat and -carbohydrate diets, III, 900.

Cahn-Bronner, C. E., oxygen requirement of pathogenic bacteria under starving conditions, III, 625. Cain, C. K. See Adams, R.

Caird, J. C., chloroma case record, III, 8. Cairns, D., vernalisation and photoperiodic induction. I. Perennial rye-grass (Lolium perenne), III, 539.

Cairns, J.G. See Anderson, T.

Cairns, T. L., preparation and attempted resolution of 2:2-dimethylethylencimine, II, 203.

and Fletcher, J. H., action of acids on  $\beta$ -hydroxy-sulphonamides, II, 191. Calandra, J. C. See Fosdick, L. S.

Calcagni, G., electrical conductivity, I,

Calderwood, H. N., and Armstrong, A. R., determination of glycogen in oysters, III, 544.

and Lane, L. W., stability of perbenzoic acid prepared without use of alkalimetal alkoxides, II, 99.

Caldwell, C. G. See Gottlieb, D.
Caldwell, R. W. See Blunn, C. T.
Caldwell, W. T., Kornfeld, E. C., and
Donnell, C. K., substituted 2-sulphanilamidopyrimidines, II, 377. See also Donnell, C. K.

Caley, E. R., volumetric flasks for micro-analysis, I, 283.

Califano, L., activation of coli fermentation, III, 51.

Calingaert, G., Beatty, H. A., Kuder, R. C., and Thomson, G. W., homologous series of alkanes; density and its temperature coefficient, I, 106.

Soroos, H., and Shapiro, H., redistribution reaction. X. Relative affinity of mercury and lead for methyl and ethyl radicals, II, 189.

Call, V. D., and Wilcke, H. L., effect of single cereal grains on hatchability of eggs and subsequent growth of chicks, III, 114.

Callahan, A., annular scotoma, III, 434. Callan, T. P., and Toennies, G., determination of sulphur in organic compounds; oxidation of sulphur of cystine and methionine, combination of Parr oxygen bomb and acidimetric benzidine method, and determination of small amounts of sulphur present as contaminant in organic materials, II, 344.

Callaway, J. L., and Sternberg, T. H., bacterial allergy: ætiological factor in dermatitis herpetiformis, III, 936.

See also Smith,  $\hat{S}$ . G.

Callaway, J. W. See Mackay, E. M. Callomon, V. B., and Goodpastor, W. E., sulphathiazole in treatment of pneumococcic pneumonia, III, 609.

Callow, N. H., Callow, R. K., and Emmens, C. W., 17-ketosteroid, androgen, and æstrogen excretion in urine of gonadal or adrenal cortical deficiency, III, 194.

Callow, R. K. See Callow, N. H. Calvery, H. O., Lightbody, H. D., and Rones, B., effects of silver salts on eye, III, 567.

Calvin, D. B., plasma volume and plasmaprotein concentration after severe hæmorrhage, III, 729.

Calvin, J. K., and Denenholz, E. J., value of roentgenography in congenital pyloric stenosis, III, 361.

Calvin, M., and Buckles, R. E., freedom of rotation about the carbon-carbon ethylenic linking; substituted stilbenes, II, 92.

and Kodani, M., physico-chemical structure of salivary gland chromosomes. II., Ill, 771.

Magel, T. T., and Hurd, C. D., structure of diketen from spectroscopic evidence.

and Wood, C. L., conjugation of carbonyl groups and absorption spectrum of triketopentane, I, 192.

Camerer, J, fatal iodine poisoning after abortions from intrauterine injection of tincture of iodine, III, 132.

Camerer, J. W., vitamin-C content of cerebrospinal fluid, III, 375.

Camerer, W., whooping cough, III, 628. Cameron, A., and Coumoulos, G. D. electron diffraction of multilayers of esters of fatty acids. I., I, 466.

Cameron, C., treating lung tuberculosis, III, 340.

See also Silverthorne, N.

Cameron, D. E. See Rosen, S. R. Cameron, G. R., Delafield, M. E., and Wilson, J., pathological changes produced in rats and mice by a toxic fraction derived from Bact. typhi murium, III, 144.

Cameron, H. S., and Goss, H., preparturient paresis in ewes, III, 9.

Cameron, J. A., primitive blood-cell generations in Amblystoma, III, 641. Recovery of carbon monoxide-poisoned monkeys under X-ray treatment, III. 656. Reduction of blood-carbon monoxide after X-ray treatment, III, 848.

Cameron, W., Krukenberg spindle associated with megalocornea and posterior pigmentation of lens, III, 863.

Cameron, W. M., efficiency of fertilisation in natural spawning of Pacific salmon, III, 440.

Cameron, W. R. See Felton, L. D.

Cammann, O., normal electrocardiogram of children, III, 334.

Cammarella, C., prophylaxis by vitamin-C in serum therapy, 111, 27.
Camp, J. D., and McCullough, J. A. L., pseudofractures in diseases affecting skeletal system, III, 951.

Campaigne, E. E., Starke, A. C., jun., Fosdick, L. S., and Dragstedt, C. A., local anæsthetic activity and toxicity of alkamine esters of p-fluorobenzoic acid, III, 295.

See also Fosdick, L. S. Campbell, A. C. P., and Russell, W. R., Wernicke's encephalopathy: clinical features and probable relationship to vitamin-B deficiency, III, 658.

Campbell, A. J. R. See Campbell, A. N. Campbell, A. N., system naphthalenebenzene considered as an ideal solution, I, 377.

and Ashley, R. W., alloys of aluminium and lead, I, 36.

Campbell, A. N., and Campbell, A. J. R., system naphthalene-p-nitrophenol: experimental investigation of all the variables in an equation of the f.p. curve,

Campbell, C. See Bondurant, C. P. Campbell, D. H. See Pauling, L. Campbell, E. H. See Houser, K. M. Campbell, F. L. Sec Cheng, T. H.

Campbell, H. A., and Link, K. P., hamorrhagic sweet clover disease. IV. Isolation of crystalline hæmorrhagic agent, III, 600.

Roberts, W. L., Smith, W. K., and Link, K. P., hæmorrhagic sweet clover disease. I. Preparation of hæmor-rhagic concentrates. II. Bioassay of hæmorrhagic concentrates by following prothrombin level in rabbit's plasma, III, 23, 600.

Campbell, H. G., and Cook, R. P., ascorbic acid in gingivitis, III, 456.

Campbell, H. L. Sec Lanford, C. S.

Campbell, J. A., silica and iron oxide and lung tumours, III, 112. Influenza virus and lung tumours in mice, III, 207. Campbell, K. H. See Richter, C. P.

Campbell, K. N., and Eby, L. T., preparation of higher cis- and trans-olefines, II, 81.

Campbell, M., Adler, S. S., and Hart, J. F. biliary cirrhosis with diabetes mellitus simulating hæmochromatosis, III, 783.

Campbell, N. See Barclay, I. M. Campbell, N. R., molecular structure in relation to œstrogenic activity; derivatives of 4:4'-dihydroxydiphenylmethane, II, 62; III, 100.

Campbell, W. G., and Bryant, S. A., bearing of decay of Phellinus cryptarum, Karst. and other fungi on destruction of wood by death-watch beetle (Xestobium rufovillosum, de G.), III, 150. See also Hirst, E. L.

Campbell, W. P., and Morgana, M., substitution reactions of dehydroabietic acid. II., II, 329.

Campbell, W. W. See Greenberg, D. M. Candella, P. B., reliability of blood-group tests on human bones, III, 158.

Canetti, G. See Saenz, A. Canizares, O., and Cohen, J. A., treatment of chancroid with sulphanilamide, III, 125.

See also Combes, F. C.

Cannan, R. K. See Longsworth, L. G. Cannon, C. Y. See Espe, D. Cannon, E. E. See Heyerdale, W. W. Cannon, H. G., fine needles for micro-diseastern III. 297

dissection, III, 827. Cannon, P. R., lipid pneumonia, III, 340. Cannon, W. B., and Rosenblueth, A., conditions affecting late stages of neuromuscular transmission, III, Features of neuromuscular transmission, III, 252.

Canny, A, J. Sec Bolliger, A. Canon, A. B., Sanders, M., and Rankin,

J. L., epidermolysis bullosa, III, 230. Cantarow, A., influence of icteric sera with high phosphatase activity on phosphatase activity of normal sera, III, 332. and Bucher, C.J., hæmochromatosis, III,

Wirts, C. W., jun., and Hollander, G., quantitative studies of direct serumbilirubin [and liver function], III, 557. Cantilo, E., successful responses in diabetes

mellitus of menopause produced by antagonistic action of sex hormones on pituitary activity, III, 264.

Cantoni, G. See Philpot, F. J.

Cantor, M.O. See Baumgarten, E.C. Capinjola, J.V. See Whitmore, F.C.

Capland, D. See Sams, W. M. Caplin, M., ammonia gas poisoning, III. 1055.

Capmana. See Rouslacroix, A. Capp, C. S. See Mettier, S. R. Cappeller, W. S. See Rinehart, J. F. Carabelli, A. A. See Ellison, R. T.

Carandante, G. See Cedrangolo, F. Carapella, L. A., precision determination of cubic lattice constants and solving cubic powder constants, I, 76.

and Hultgren, R., high magnetic saturation value for copper-manganese-tin Heusler alloy, Cu<sub>2</sub>MnSn, I, 328.

Carboneschi, C. L., spectroscopic investigation of hydrogen sulphide, III, 166. Cárcamo, V. See Deulofeu, V

Card, W. I., comparison of inhibitory action of different fats and fatty acids introduced into the duodenum on gastric contractions, III, 678.

Carden, G. A., Province, W. D., and Ferrebee, J. JV., measurement of urinary excretion of vitamin-B<sub>1</sub>, III, 596. See also Ferrebee, J. W.

Cardiff, I. D., how toxic is lead arsenate?. III, 220.

Cardon, L., functional bowel disturbance and milk allergy; beside diagnosis, III,

Cardot, H., and Jullien, A., effect of purple gland extract on nerve and muscle excitability, III, 1056. Cardwell, H. M. E. See Koebner, A.

Carey, B. W., sulphonamides in pædiatries, III, 291. Treatment of pneumonia in infants and children, III, 693. Results of sulphanilamide therapy in children. III, 907.

Carey, E. J., microscopic structure of striated muscle in heat rigor, III, 340.

Carhart, H. W. Sec Drake, N. L.

Carlen, S. Sec Katz, L. N. Carleton, A., comparative study of inferior tibio-fibular joint, III, 822.

Carlisle, C. H., and Crowfoot, (Miss) D., determination of molecular symmetry in αβ-diethyldibenzyl [γδ-diphenylhexane] series, I, 103.

Carlson, A. J. See Hoelzel, F. Carlson, H. B., Gellhorn, E., and Darrow, C. W., representation of sympathetic and parasympathetic nervous systems in forebrain of cat, III, 742.

Carlson, J. F., and Schein, M., production of mesotrons, I, 316.

Carlson, J. G., analysis of X-ray-induced single breaks in neuroblast chromosomes of grasshopper, III, 319.

Carlson, L. See Marsh, G. Carlson, L. D. See Bodine, J. H.

Carlson, W. E. See Green, R. G.
Carmichael, E. A., Honeyman, W. M.,
Kolb, L. C., and Stewart, W. K., skin resistance response in man, III, 428. Peripheral conduction rate in sympathetic nervous system of man, III, 432.

Carmichael, E. H., and Thompson, W. D., effect of repeated administration of "delvinal-sodium" (sodium 5-ethyl-5-α-methyl-Δα-butenylbarbiturate) to guineapigs, III, 787.

Carmichael, R., and Jeaffreson, B. L., squamous metaplasia of columnar epithelium in human cervix, III, 509.

Carne, H. O. See Mackay, E. M., and Wick, A. N.

Carne, H. R., toxin of Corynebacterium ovis,

Carnes, W. H., androgenic assay of human fœtal adrenal, IIĬ, 573.

Ragan, C., Ferrebee, J. W., and O'Neill, J., effects of deoxycorticosterone acetate in rat, III, 755.

Carney, A. S. See Lincoln, R. M.

Carp, L., fractures and dislocations by muscular violence complicating convulsions induced by metrazol for schizophrenia, III, 89.

Carpanese, T., immersion method [for measurement of refractive index of

solids], I, 221.

Carpenter, C. R., menstrual cycle and body temperature in two gibbons (Hylobates lar.), III, 673. Behaviour and social relations of Hylobates lar., III, 956.

Carpenter, G., failure to control polycythæmia rubra vera with lipocaic and choline, III, 71.

and Flory, C. M., chronic non-leukæmic myelosis, III, 645.

Carr, C. J. See Beck, F. F., Bell, F. K., Dozois, K. P., and Krantz, J. C., jun.

Carr, C. W., Freundlich, H., and Sollner, K.influence of salts on adsorption of strong acids, I, 255.

See also Sollner, K. Carr, N. E. See Uhlig, H. H.

Carreró, J. G., volumetric determination of bismuth, I, 129.

Carroll, G., Kappel, L., and Lewis, Bransford, sulphathiazole, III, 293.

Carroll, J. See Royster, C. L. Carroll, M. F., addition of  $\beta\gamma$ -unsaturated alcohols to active methylene group. III. Scope and mechanism of the reaction, II, 309.

Carroll, R. P. See Haggard, H. W. Carroll, W. R., and Stier, T. J. B., nature of stimulation of yeast respiration by chloroform-preserved cytochrome

extracts, III, 388. Carruthers, C., influence of heptaldehyde on carcinogenic action of methylcholan-

threne, III, 278.

Carson, J. F., and Noller, C. R., saponins and sapogenins. XVI. Properties of echinocystic acid and diketomethyl ester derived from it, II, 143.

See also Noller, C. R. Carson, S. F., Foster, J. W., Ruben, S., and Barker, H. A., radioactive carbon as indicator of carbon dioxide utilisation. V. Propionic acid bacteria, III,

Foster, J. W., Ruben, S., and Kamen, M. D., radioactive carbon as tracer in synthesis of propionic acid from carbon dioxide by propionic acid bacteria, III, 536.

Carter, A. B., atropine poisoning, III,

and Dunlop, J. B. W., paresis following herpes zoster, III, 430.

Carter, A. J., preferential reactions of polyfunctional compounds, II, 254.

Carter, H. E., Handler, P., and Stevens, C. M., azlactones. III. Acylation of amino-acids in pyridine, II, 187.

and Ney, L. F.,  $\alpha$ -hydroxy- $\beta\beta$ -dimethyl- $\gamma$ -

butyrolactone, II, 85.
and Risser, W. C., azlactones. V.
Preparation of a-benzamidocinnamic acid azlactones I and II; use of  $\beta$ -phenylethylamine in the purification of α-amino-β-methoxy- (-hydroxy-) acids, II, 253.

Carter, H. E., and Stevens, C. M., benzoylation of amino-acids, II, 188.

Stevens, C. M., and Ney, L. F., azlactones. IV. Synthesis of  $\alpha$ -amino- $\beta$ -thiol-nbutyric acids, II, 245.

See also Audrieth, L. F. Carter, L. W. See Lough, S. A.

Carter, R. O., physical-chemical investigation of nucleoproteins. III. Moleeular-kinetic studies with calf thymus nuclcohistone, I, 413.

Carter, R. T., Sage, B. H., and Lacey, W. N., phase behaviour in methane-

propanc—n-pentane system, I, 48.
Cartland, G. F. See Kuizenga, M. H., and Nelson, J. W.
Cartledge, G. H., chain carriers in Eder's

reaction, I, 275. and Nichols, P. M., determination of

cobalt as trioxalatocobaltiate, I, 128. Malonatomanganiates, I, 278.

Carusi, O., pharmacodynamic study of trasentin, III, 787.
Carver, J. S., Heiman, V., and Cook, J. W.,

assay of vitamin-D with chicks, III, 121.

See also Heiman, V.

Caryl, C. R., demonstration of "wetter" water, I, 166.

Casals, J., influence of age factors on immunisability of mice to rabies virus, III, 478. Influence of age factors on susceptibility of mice to rabies virus, III, 478.

and Palacios, R., complement fixation in encephalitis and rabies virus infections, III, 1075.

Sec also Webster, L. T.

Case, E. M., and Haldane, J. B. S., tastes of oxygen and nitrogen at high pressures, III, 867.

Case, F. H., and Koft, E., jun., synthesis of local anæsthetics of diphenyl series, II,

Casey, A. E., diurnal levels of blood leucocytes in normal rabbit, III, 326. Experiments with material from the Brown-Pearce tumour, III, 1027.

Cash, J. G. See Gaines, W. L. Cashell, G. T. W., malignant change in melanosis of the conjunctiva, III, 90.

Casida, L. E. See Bell, T. D.

Caskey, C. D., and Norris, L. C., micromelia in adult fowl caused by manganese deficiency during embryonic development, III, 4.

Casmajor, L., and Alpert, G. R., Guillain-Barre syndrome in children, III, 499. Cason, J., preparation of hydroxynaphthoic

acids, II, 169.

and Fieser, L. F., synthesis of 4':8'-dihydroxy-1:2:5:6-dibenzanthracene; its relation to products of metabolism of the hydrocarbon, II, 9. 3:7-Dihydroxy-1:2:5:6-dibenzanthraquinone, II, 261.

Caspell, J., composition of the Upton nodules, I, 20.
Caspersson, T. See Gersh, I.
Cass, W. E., sulphanilyl-pyrrolidine and -pyrroline, II, 268.

Cassaday, (Miss) S. A., and Bogert, M. T., retene field. XI. Synthesis of retopyridines (naphthaquinolines) from 3-aminoretene. XII. Synthesis of 10-phenanthr[2, 3-b]azepine derivatives by Beckmann rearrangement of a tetrahydrobenzretene ketoxime, II, 175, 269. Cassel, H. M., photovoltaic effect, I,

Cassels, D. E. See Schlutz, F. W.

Cassidy, H. G., air jacket for f.p. apparatus, I, 58. Adsorption analysis. II. Adsorption of higher fatty acids. III. Relation between adsorption isotherm and position on the adsorption column, II, 210.

Cassie, A. B. D., and Palmer, R. C., effect of salts on soluble ionised monolayers, I, 207.

Cassil, C. C., determination of arsenic, I, 175. Volumetric micro-determination of

arsenic, I, 219. Castaldi, L. See Scoz, G. Castanet. See Jeanneney.

Castberg, H. T. See Neal, P. A.
Castell, C. H., p-aminodimethylaniline monohydrochlorido as an indicator of microbial action on fats, III, 316.

and Garrard, E. H., action of microorganisms on fat. III. Oxidation and hydrolysis of triolein by pure cultures of bacteria. IV. Changes produced in globules of triolein by pure cultures of bacteria, III, 536. Castex, M. R., treatment of peripheral

gangrene [with 5% carbon dioxide + 95% oxygen], III, 338.

Battro, A., and González, R., site of origin of human ventricular extrasystoles, III, 495.

and López Garcia, A., comparison of methods for determining urobilin as urobilinogen by the Watson-Heilmeyer technique and by fluorescence with the Zeiss nephelometer and Pulfrich photometer, III, 203.

López García, A., and Zelasco, J. F., determination of bilirubin in blood, III, 166.

Castiglioni, A., determination of piperazine. II., II, 388.

Castle, W. E., and King, H. D., linkage studies of rat. V. III, 955.
Castleden, L. I. M., potassium salts and

cardiac irregularities, III, 335.

Caswell, M. See Bruce, J. G.

Catchpole, H. R. See Wagenen, G. van.

Cate, H. D. See Sandels, M. R.

Catel, W., pathogenesis and differential diagnosis of pachymeningitis and leptomeningitis hæmorrhagica interna, III, 344. Feeding of premature born child, III, 370.

Cates, H. B., liver function tests in alcoholic cirrhosis, III, 513.

Cathcart, E. P., change in wartime dietaries and individual health, III, 592.

Cathcart, J. A. See Newman, M. S. Catherwood, R. See Stearns, G.

Cator. See Jeanneney.

Cattabeni, C. M., agglutination reactions in blood and tissues after death, III, 311.

Cattaneo, C., and Bassani, B., experimental immunisation and serum-glucosamine, III, 56.

Cattell, M., and Gold, H., purified digitalis glucosides. III. Relationship between therapeutic and toxic potency, III,

See also Gold, H., and Kwit, N. T. Cattell, R. B., management of hyper-

thyroidism complicated by other conditions, III, 752.

Caughlan, C. N., and Tartar, H. V., Raman spectra of aldehyde and ketone bisulphites, I, 321.

 Caulk, R. M. See Merritt, E. A.
 Cavallito, C. J., and Smith, Clayton S., action of halogens on aβ-unsaturated ureides, II, 188.

Cave, A. J. E., Sterkfontein tooth, III, 825.

Cavell, K. Sec Hoyt, A.

Caveness, H. L., Satterfield, G. H., and Dann, W. J., correlation biophotometer test results with vitamin-A content of human blood, III, 569.

Cavett, J. W., non-fermentable reducing substance of chicken blood, III, 32.

Cavinato, A., morenosite from Valtour-nanche, I, 436. Cawadias, A. P., history of endocrinology,

III, 570. Cawley, J. D. See Gray, E. LeB. Cecil, R. L. See Rothbard, S.

Cedrangolo, F., and Carandante, transamination in higher plants, III,

Celani-Barry, R. See Mancini, R. E. Celestino da Costa, A., unitary classification of paraganglia, III, 180. Paraganglia and sympathetic system, III, 861. Celli, C. E. See Pasqualini, R. Q.

Celsi, S. A. Sec Guzmán, J.

Cervino, J. M. See Fournier, J. C. M. Cesari, E., and Boquet, P., rapid production of antivenom serum in the rabbit, III,

Cevey, F., results of tuberculin treatment, III, 222.

Chabarova, A. V. Sce Karasev, K. I.
Chace, R. R. See Stone, L. S.
Chadwick, C. S., identity of prolactin with
water drive factor in Triturus virilescens, III, 575.

Chaffee, E. See Meyer, K. Chaikin, N. W. See Upham, R.

Chaikin, S., Lissovski, L., and Solomono-vitsch, A., "dry friction" forces, I, 161.

Chaikina, B. I., mechanism of glycolysis in brain of animals in different stages of ontogenesis. I. Glycolysis and phosphorus compounds in poisoning with sodium fluoride. II. Effect of iodoacetic acid on glycolysis and transformation of phosphorus compounds. III. Glycolytic activity of brain in presence of various substrates, III, 689, 745.

See also Palladin, A. V.

Chaikoff, I. L., Lorenz, F. W., and Entenman, C., endocrine control of [blood-]lipin metabolism of birds during pubescence and annual rest, III, 558.

See also Entenman, C., Friedlander, H. D., Fries, B. A., Montgomery, M. L., Morton, M. E., and Perlman, I. Chaimovitsch, L. A., effect of chronic

insulinisation and subsequent overloading with carbohydrates on carbohydrate content of brain and tissues of rats, III, 756.

Chain, E., and Duthie, E. S., identity of hyaluronidase and spreading factor,

IĬI, 302.

Florey, H. W., Gardner, A. D., Heatley, N. G., Jennings, M. A., Orr-Ewing, J., and Sanders, A. G., penicillin as chemotherapeutic agent, III, 37.

See also Abraham, E. P., and Epstein,

Chakravorty, P. N., and Ballentine, R., luminescent oxidation of luciferin, II,

Chalam, E. V. See Nath, N. S. N.

Chalatov, S. S., senility and xanthomatosis,

Chaletzki, A. M., effect of radicals on isomeric transformations of tert .- a-ketoalcohols. III. Effect of the a-naphthyl radical, II, 45. Chalkley, H. W., and Voegtlin, C., effect of variation in oxygen tension and thiol concentration on nuclear growth and fission in Amada proteus, III, 389.

Chalkley, L., organic mercury derivatives of basic triphenylmethane dyes: dimercuriderivatives of malachite-green, II, 207.

Challis, H. J. G., interference of selenium and tellurium with determination of arsenic by hypophosphorous acid method.

Chalmers, H. N. M., Gaucher's disease; diagnosis by sternal puncture and improvement following splenectomy, III, 326.

Chalmers, J. G., and Kirby, A. H. M., elimination of subcutaneously injected 3:4-benzpyrene from the animal body.

I. Unchanged benzpyrene, III, 19. Chalmers, J. N. M., Gillam, A. E., and Kench, J. E., porphyrinuria in methyl

chloride poisoning, III, 366.
Chamberlain, C. T., Jacobs, S., and Butler,
M. F., total blood-fat as index of
thyroid function, III, 183.
Chamberlain, J. W. See Mahoney, P. J.
Chamberlain, W. P. See Meyer, K.

Chamberlin, T. L., Gardner, W. U., and Allen, E., local responses of sexual skin and mammary glands of monkeys to cutaneous applications of œstrogen, III, 675.

See also Gardner, W.U.Chambers, A.H. See Dohan, F.C.Chambers, E., and Watt, G. W., identification of sulphonic acids, II, 275.

Chambers, L. A., effects of intense sound waves on biologically important reactions, III, 133.

See also Bateman, J. B., and Henle, W.Chambers, R., micro-manipulative technique and its application, III, 69. See also Gordon, H. K.

Chamorro, A., effect of deoxycorticosterone on mammæ and secondary sex characters of hypophysectomised male mouse, III, 438.

See also Leblond, C. P.

Champion, F. C. See Powell, C. F. Chance, M. R. A., rate of loss of activity of

antigonadotropic scrum in vivo, III, 192. See also Bacharach, A. L.

Chand, R. See Bhatnagar, S. S. Chandlee, G. C. See Beale, R. S.

Chandler, A. C. See Burlingame, P. L. Chandler, J. P. See Du Vigneaud, V.

Chandler, S. B., and Pickett, A. D., rate of oxygen consumption in parathyroidectomised rat, III, 753.

Chaney, A. L. See Hoyt, A. Chang, C. See Chi, T. K. Chang, Chun, pre-adipose cells, III, 5.

Chang, C. Y., Chen,  $\hat{T}$ . T., and Luo, T. H., cataract, parathyroid hypertrophy, and hypocalcæmia in vegetarian rats, III. 999. Cataract in vegetarian rats, III,

Chen, T. T., Wu, H., and Luo, T. H., cataract, parathyroid hypertrophy, and hypocalcæmia in vegetarian rats, III, 999.

Wu, H., and Chen, T. T., life span of vegetarian and omnivorous rats, III, 1031.

Chang, E. See Luo, T. H. Chang, H. C., Huang, J. J., Lü, Y. M., and Tsang, Y. C., vagus-post-pituitary reflex. IX. General locus of vagosupraoptic tract, III, 431.

Chang, H. C., Lee, L. Y., and Meng, C. W., release of acetylcholine from human placenta, III, 442.

Liu, T. F., and P'an, S. Y., influence of testosterone propionate on gonadotropic potency of anterior pituitary gland, III, 760.
Chang, H. T., recurrent fibres in cerebellar

cortex of monkey, III, 660.

Chang, J., and Mathews, G. B., anti-typhus vaccine prepared from Rickettsia prowazeki cultivated in yolk sac of

developing chick embryo, III, 475.
Chang, K. J. See Chi, Y. F.
Chang, M. C., and Walton, A., effects of low temperature and acclimatisation on

respiratory activity and survival of ram

spermatozoa, III, 355.
Chang, T. L. See Robertson, R. C.
Chang, Tsing Lien, and Wei, Y. C., change
of velocity of the reaction between hydrogen peroxide and hydriodic acid through displacement of protium by deuterium atoms, I, 271.

See also Kao, C. H. Chang, T. S., Bethe-Kirkwood partition function for a binary solid solution, I, 163. Second-neighbour interactions and critical behaviour of binary solid solu-

tions, I, 163.
Chang, Y. L. See Lu, S. S.
Chang-Shaw Jang. See under Jang, C. S.
Changus, G. W. See Fries, B. A.

Chanin, M. N., cardiac disturbance in blood

transfusion shock, III, 964. Schwartz-Grudzinskaja, P. J., Kasatkina, N. P., Kurscheva, A., Uvarova, K., and Korobkov, G., significance of liver in development of transfusion shock.

I. and II., III, 964. See also Antonoff, G.

Channon, H. J., Manifold, M. C., and Platt, A. P., action of sulphur-containing amino-acids and proteins on liver fat deposition, III, 31.

Chanutin, A. See Beckwith, J. R. Chao, C. H. See Tang, T. H.

Chao, H. C. See Liu, S. H.

Chao, I. See Ting, Y. C.
Chao, K. T. See Oleson, N. L.
Chao, P. Y., action of phosgene on thio-

diglycol, II, 210.

Chao, T. H. See Brown, H. C. Chao, Y. S. See Tang, T. H. Chapin, E. C. See Price, C. C.

Chapman, C. W. See Hager, G. P. Chapman, E. M., effect of paint on kidneys with reference to role of turpentine. III. 1058.

Chapman, G. H. See Hovorka, F., and Rawls, W. B.

 Chapman, J. See Fetters, K. L.
 Chapman, N. B., and Saunders, B. C., peroxidase action. III. Oxidation of mesidine, II, 326.

Chapman, R. A. See McFarlane, W. D. Chapman, S., molecular fields of force, I, 30, 102. Characteristics of thermal

diffusion, I, 201.
Chapman, W. M., osteology and relationships of Plecoglossus alliccis, III, 638. Osteology and relationships of Osmerid fishes, 111, 822.

Chapple, C. C., and Davidson, D. T., feetal position and congenital deformities, III,

Char, G. Y., and Pai, H. C., adenoma of kidney, III, 681. Papillary carcinoma of renal pelvis with hydronephrosis, III, 681.

Char, G. Y., and Wu, S. D., papillary cystic adenocarcinoma of kidney, III,

Charamonenko, S. S., influence of hydrolysis of gelatin on periodic reactions, I, 46. Limits of periodic stratification, I, 46.

Chardonnens, L., and Heinrich, P., reactivity of methyl group. VII. Deriv-

atives of azobenzene, II, 93.

Chargaff, E., and Ziff, M., coagulation of fibrinogen by simple organic substances as model of thrombin action, III, 556. Isolation of serine from phosphatides of ox brain, III, 989.

Ziff, M., and Cohen, S. S., chemistry of blood coagulation. X. Reaction between heparin and thromboplastic

factor, III, 75.

Ziff, M., and Moore, D. H., chemistry of blood coagulation. XII. Electrophoretic study of effect of anticoagulants on human plasma-proteins; separation of heparin complement, III, 647.

Ziff, M., and Rittenberg, D., determination of bases of phospholipins by isotope dilution method, III, 516.

See also Cohen, S. S., Palmer, K. J., and Ziff, M.

Chargin, L., and Leifer, W., fixed eruptions due to arsphenamines, III, 466.

See also Peck, S. M.

Charin, A. N., ion antagonism in Raffo's sulphur sols, I, 111. General and electrochemical properties of Raffo's sulphur sols, I, 111.

Juster, M. H., and Agarkova, N. J., equivalence of ion exchange in sulphur

sols, I, 259.

Charin, S. E. See Shurigina, E. A. Charipper, H. A. See Fabrizio, M., Levenstein, I., and Vollmer, E. P.

Charitonov, S. A. See Shirmumskaja,

Charles, A. F. See Jaques, L. B.

Charn, C. W., testicular biopsy, III, 270.
Charr, R., and Savacool, J. W., changes in arteries in walls of tuberculous pulmonary cavities, III, 249.

Chase, A. M., and Giese, A. C., effects of ultra-violet radiation on Cypridina luciferin and luciferase, III, 302.

See also Giese, A. C.

Chase, E. B., anophthalmic strain of mice. II. Effect of congenital eyelessness on reproductive phenomena, III, 746, 870.

See also Chase, II. B.

Chase, F. M., increased stimulation of alga Stichococcus bacillaris by successive exposures to short wave-lengths of the ultra-violet, III, 385.

Chase, H. B., and Chase, E. B., anoph-thalmic strain of mice. I. Embryology

of the eye region, III, 432.

Chase, H. F. See Yonkman, F. F. Chase, H. Y., effect of ultra-violet light on cleavage in marine eggs, III, 955.

Chase, M. W. See Landsteiner, K. Chasis, H. See Goldring, W.

Chasnoff, J., Leibowitz, S., and Schwartz, Robert, evaluation of the Meulengracht regime in treatment of bleeding peptic ulcer, III, 102.
Chassagne, P. See Turpin, R.
Chassin, M. R. See Bruger, M., and

Flexner, J.

Chastain, L. L. See King, E. S. Chatterjee, D. P., aluminium phosphate, I,

Chatterjee, H. N., and Ghosh, S. M., lecithin content of blood of normal and pregnant Indian women, III, 167. and Sarkar, J., biochemical study of blood

of cholera patients, III, 644. and Sen, S., serum-electrolytes of normal

Indians, III, 167.

Chatterjee, N., natural and artificial yttrofluorito using fluorescence and absorption spectra, I, 320.

Chatterjee, N. N., and Barpujari, G. N., influence of substitution on formation

of derivatives of a-hydrindone and 1-keto-1:2:3:4-tetrahydronaphthalene; synthesis of 1:2:3:4-tetrahydronaphthalene-1:2-dicarboxylic acid, II, 14.

Chatterjee, R., alkaloid of Berberis umbellata, Wall. I. Umbellatine, II, 23. Oxalenediamidoxime (oxamidedioxime). II., II, 283. Umbellatine from Berberis insignis, Hook, III, 1086.

Chatterjee, S., and Rây, P., reactions and exchange of active iodine in an inorganic system, I, 19.

Chatterjee, S. D., thermal neutrons in the atmosphere, I, 313.

and Banerjee, D. K., radioactive organic bromine compounds, II, 210.

Chauchard, A., Chauchard, B., and Fegler, J., changes in excitability of respiratory centre due to anoxemia and hyperpnea, III, 424. Effect of anoxemia on excitability of respiratory centre in vagotomised dog with denervated sinuses, III, 424.

Chauchard, B. See Chauchard, A.

Chauchard, P. See Binet, L.
Chaudhury, S. G., derivation of expressions
for e.m.f. of concentration cells from principle of the Donnan membrane equilibrium, I, 417.

Chaudri, R. M., and Khan, A. W., emission of secondary electrons from nickel, I,

Chaulin-Serviniere, J., blood group of Macaca sylvanus, III, 828.

Chaume, J. See Lipschütz, A.
Chauvet, M., agyrophil fibrils in extraembryonic blastoderm of chick, III, 318.

Chazina, J. G. See Tartakovskaja, V. E. Cheeseman, E. A., effect of war years on mortality in childhood, III, 158 Cheetham, A. H. Sec Audus, L. J.

Cheever, F. S., complement-fixing antibody in sera of rabbits bearing Brown-Pearce carcinoma, III, 280.

and Janeway, C. A., immunity induced against Brown-Pearce carcinoma, III, 280.

See also Favorite, G. O.

Cheinman, A. S., effect of surface films on rate of evaporation of water and aqueous solutions, I, 411.

Chemerda, J. M. See Bachmann, W. E. Chen, C. K. See Bloomfield, A. L. Chen, C. Y. See Yen, C. H.

Chen, G., Oldham, F. K., and Geiling, E. M. K., appearance of melanophoreexpanding hormone in developing chick, III, 352. See also Li, R. C.

Chen, H. K., nodules produced on legumes by strains of Rhizobium, III, 1083.

Nicol, H., and Thornton, H. G., growth of nodule bacteria in expressed juices from legume roots bearing effective and ineffective nodules, III, 228.

and Tang, P. S., oxidation of pyruvic acid by bacteria, III, 307.

Chen, K., cultivation of Cl. tetani in unfertilised and developing fertilised

hens' eggs, III, 394. Chen, K. K., and Elderfield, R. C., cardiac action of derivatives of strophanthidin and cymarin, III, 216.

See also Blair, A. P.

Ch'en, S. Y., broadening, asymmetry, and shift of rubidium resonance lines under different pressures of helium and argon up to 100 atmospheres, I, 65.

and Pao, C. S., pressure effects of hydrogen and nitrogen on the second doublet

of Rb principal series, I, 65.

Chen, T. T., lipin content of damaged rabbit's liver, III, 446. Action of trypsin on casein and gelatin, III, 470. Tributyrin esterase activity of damaged rabbit's liver, III, 533. Iodine absorption and complement content of scrum, III, 632.

Wu, H., and Cheng, C. Y., soya-bean diets, III, 593.

See also Chang, C. Y. Ch'en, W. M. See Fan, C.

Chen, Y. P., and Anderson, H. II., course and chemotherapy [with arsenicals] of experimental relapsing fever in Chinese hamster, III, 1054.

Cheney, G., clinical value of vitamin-K, III, 288. Vitamin-K deficiency in gallbladder disease without clinical jaundice or hepatitis, III, 514. Effect of diet and cinchophen on production of experimental gastric ulcers in chicks, 111, 582.

Cheney, R. H., myofibrillar modifications induced by caffeine in cardiac muscle of

frog, III, 840.

Ch'eng, C., Tseng, T. P., Feng, S. K., and Band, W., dissociation treatment of condensing systems. IV., I, 160. Cheng, C. K., dielectric constants of

metallic sulphates containing various amounts of water of crystallisation, I, 29.

Cheng, C. Y. See Chen, T. T. Cheng, L. T., Li, H. C., and Lan, T. H., biological values of soya-bean protein and mixed soya-bean-pork and -egg proteins in human subjects, III, 592. Cheng, T. H., and Campbell, F. L., toxicity

of phosphorus to cockroaches, III, 790.

Cheng, T. Y. See Lin, S. H.

Cheng-Kai Wu. See Lee, E., and Sutherland, G. B. B. M.

Chenoweth, L. B. See Mills, C. A. Cherney, L. S., unilateral agenesis of Mullerian system in female, III, 155.

Cherniack, M., and Sheps, C. G., prostigmine in delayed menstruation, III, 1012.

Cheronis, N. D., and Spitzmneller, K. H., ammonolysis. I. Ammonolysis halogen fatty acids and preparation of a-amino-acids, II, 243.

See also Sister, H. H.

Cherry, G. W. See Irving, H. Chesley, L. C., determination of thiocyanate in biological fluids, III, 947.

Chester, A. E. See Jackson, W.
Cheu, D. H. See Liu, S. H.
Chevais, S. See Khouvine, Y.
Chevasse, F. B., primitive sight and human

squint, III, 90. Chèvremont, M., transformation of skeletal muscle elements grown in vitro into

histocytes, III, 241.
Cheymol, J. See Hazard, R.
Chi, T. K., and Chang, C., sulcal pattern of the Chinese brain, III, 722.

Chi, Y. F., Kao, Y. S., and Chang, K. J., alkaloids of Fritillaria Roylei. II. Isolation of peiminine, II, 272.

Chiari, O. von., periosteal bone changes in sucklings, III, 2.
Chiba, H. See Uyei, N.
Chiba, S., blood changes in chronic copperintoxication of rabbits, III, 557.

Chick, H., nutritive value of white flour with vitamin-B<sub>1</sub>, III, 284. and Ellinger, P., photo-sensitising action

of buckwheat, III, 1056.

Chiego, B. See Silver, H. Chien, S. L., and Chow, K. T., effect of substituents on germicidal activity of phenols. III. Chlorinated hydroxyphenyl alkyl sulphides, II, 9.

and Yun, L. Y., effect of substituents on germicidal activity of phenols. II. Alkyl derivatives of 2:4-dichlorophenol,

II, 9.

Childs, A., and Dick, G. F., pancreatic function in non-tropical sprue, III, 201. Chin, K., effect of toxin of Trimeresurus macrosquamatus, Cantor, on lactic acid content of blood in rabbits, III, 42.

Chin, K. Y. See Cho, H. I., Liu, S. H., and Loncks, H. H.

Chin, S. See To, S. Chin, T. S. See Liu, Y. P.

Chinn, A. B., treatment of undulant fever with sulphanilamide, III, 609.

Chinn, B. D. See Kosher, S. A. Chinn, H. See Bellows, J. G., and Kendall,  $A.\ I.$ 

Chiplonkar, V. T., excitation of light emission from quartz under impact with canal rays of hydrogen and nitrogen, I, 192. Rectification in discharge tubes. II., I, 400. Localisation of discharge in ordinary and canal-ray tubes, I, 438. Effect of mercury vapour on continuous spectrum of hydrogen excited by canal rays of hydrogen, I, 444.

Chipman, J. See Floe, C. F. Chipps, H. D., aneurysm of sinus of Valsalva causing coronary occlusion, III, 841.

Chirnside, R. C., Pritchard, C. F., and Rooksby, H. P., determination of metals by means of 8-hydroxyquinoline, I, **4**83.

Chisholm, J. F. See Terry, T. L.

Chitrik, S. N., synthesis of primary  $\beta\gamma$ -unsaturated alcohols, glycols, and their derivatives, II, 309. Peculiarities of reactions involving formation of conjugated double linkings; preparation of δε-diphenyl-Δανεη-octatetraene from γbenzoylpropyl bromide, II, 319.
Ch'iu, P. T. Y. See Hsneh, C. Y.
Chin, T. L. See Wu, Y. J.
Chivers, E. M., and Evans, W. E. F.,

anæsthesia in surgical shock, III,

See also Baker, A. H. L.

Chlopin, V. G., chemical nature of products of fission of heavy nuclei, I, 287.

and Tolstaja, M. A., structure of pseudomixed crystals of type barium nitratemethylene-blue, I, 462.

Chmelevski, V. I. See Slobodski, A. G. Chmnra, M., chemical characteristics of

varieties of Nicotiana, III, 63. Cho, H. J., and Chin, K. Y., congenital

cystic kidney, III, 681. Cho, S. See To, S.

Chobot, R., Dundry, H., and Schaffer, N. relationship of mould reactions to clinical symptoms, III, 811. 2-A

Chodat, F., determination of extent of opening of stomata by flotation method in acetone, III, 711.

and Haag, E., accumulation of carotenoids in a green alga. I., Ill, 711. and Olivet, R., anti-sporulating action of sulphanilamide on alga, III, 314.

Cholail, J. See Kehoe, R. A.

Cholak, J., and Bambach, K., determination of lead in biological material, III, 1087. See also Bambach, K.

Cholffin, M. See Thelander, H. E.

Cholina, A. A., eye lesions due to senility, III. 89.

Cholodova, M., four-component systems, I, 12.

and Markevitsch, I. T., flocculation of starch by saliva, III, 46.

Chomenko, G. I., and Grinberg, E. A., treatment of acute experimental experimental dysentery in rabbits by transfusion of fresh citrated blood, III, 929.

Choremis, K., Papachristoll, E., and Korkas, J., adrenal function and vitamin-C, III, 95.

and Spiliopoulos, G., paralytic symptoms after administration of synthetic antimalaria drugs, III, 126.

Chorgade, S. L., space-group of 1:3:5-trinitrobenzene crystal, I, 155. Crystal structure of chloranil, I, 155. structure of bromanil, I, 326.

See also Krishnan, K. S. Chorower, C., evaporation of salt water in relation to meteorological factors. II. Coefficient of slow evaporation of salt pans of the Unión Salinera de España, I, 308.

Chou, T. Q., and Chu, T. T., gelsemine. II. Bromination and nitration, II, 177.

See also Chu, J. H. Chouaiech, M. S. See Roche, J. Choudhury, C. See Khastgir, S. R.

Chow, B. F., Greep, R. O., and Van Dyke, H. B., effects of digestion by proteolytic enzymes on gonadotropic and thyrotropic potency of anterior pituitary extract, III, 188.

See also Greep, R. O. Chow, K. T. See Chien, S. L. Chow, T. S. See Tseou, H. F.

Chowdhry, (Miss) B. See Bose, D. M. Chowdhuri, A. G., and Kothari, D. S.,

determination of the mechanical equivalent of heat, I, 283.

and Singh, B. N., energy and wavelength maxima in Fermi-Dirac and Bose-Einstein distributions, I, 236.

Chrisman, R. B., jun. See Rigdon, R. H. Christensen, B. E., West, E. D., and Dimick, K. P., determination of aminoacids by ninhydrin reaction, II, 156.

and Wong, R., wet combustion micromethod for determination of carbon and hydrogen; iodic acid as an oxidant for wet combustion, II, 307.

Seo also Hansen, E.

Christensen, H. See Williams, H. J. Christensen, H. N., and Hastings, A. B., phosphatides and inorganic salts, III, 133.

See also Ross, W. F.

Christensen, L. R., quantitative determination of activity of streptococcal fibrino-

lysin, III, 1071. Christensen, T. A. See Joslin, C. L. Christiansen, B. E., Friedman, L., and Sato, Y., methoxyl determination; modification of apparatus and preparation of hydriodic acid, II, 235.

Christiansen, J. B., Deobald, H. J., Halpin, J. G., and Hart, E. B., effective supplements for soya-bean oil meal in chick rations, III, 371.

Christiansen, W. G., sodium sulphathiazole sesquihydrate, II, 153.

and Dolliver, M. A., 6-methyl-5:8quinolinequinone, II, 269.

See also Cole, J. W.

Christie, A., sulphanilamide and bacterial endocarditis, III, 291. Duration of diphtheria immunity, III, 391.

Christie, R., slide agglutination to determine pathogenicity of staphylococci, 111, 393.

and Graydon, J. J., staphylococcal hamolysins and lipase, III, 628.

and Keogh, E. V., physiology and serology of staphylococci of human origin, HĬ, 53.

Christie, R. V., oxygen therapy, III, 86. See also Hadfield, G.

Christopher, G. L. See Crossley, M. L. Christy, R. F., and Keller, J. M., determination of fine structure constant, 1, 2. and Kusaka, S., burst production by mesotrons, 1, 235. Interaction of y-rays with mesotrons, I, 235.

Chrobak, L., and Baranovski, T., different hexagonal crystals of myogen A from

rabbit muscle, III, 426.

Chrom, S. A. See Braestrup, P. W.
Chromov, N. V. See Porai-Koschitz, A. E.
Chu, (Miss) E. J. H., reactions of 2:2'diacyldiphenyls. I. Reactions between 2:2'-diacyldiphenyls and magnesium ethyl bromide, II, 11. Acenaphthene series. I. 3-Benzoylace-Acenaphthene and related compounds, II,

and Wei, F., retropinacolin rearrangement of 10:10-diaryl-9:10-dihydro-9phenanthrols, II, 11.

Chu, F., and Sung, C., tetany in infancy and childhood, III, 28.

See also Fan, C.

Chu, H. I., Liu, S. H., and Yu, T. F., water and electrolyte metabolism in diabetes insipidus, III, 1008. See also Liu, S. H.

Chu, H.J. See Ho, E.A.Chu, J.H., and Chou, T.Q., saponins of Chinese drug, San-chi, Aralia bipinnatifida. II. Arasaponin B, II, 300. Repetitive discharges of mammalian motor nerve endings after treatment with veratrine, barium, and guanidine, III, 981.

Chu, J. P., effects of estrone and testosterone and of pituitary extracts on gonads of hypophysectomised pigeons, III, 193. Feminisation of plumage by androgenic substances, III, 1009.

Chu, T. M. See You, S. S.
Chu, T. T. See Chou, T. Q.
Chubb, W. F., thermal and electrical conductivities of metals and alloys, I, 7. Chudekova, N. D. See Salkind, J. S.

Chung, H. L., and Lu, J. P., cross complement fixation reaction of sera of kalaazar patients and sera of dogs and rabbits infected with or immunised against Leishmania donovani and L. canis, III, 1064.

Chunn, C. F., and Harkins, H. N., alimentary azotæmia due to whole blood absorption from gastro-intestinal tract, III, 271. Alimentary azotæmia: syndrome as part of bleeding peptic ulcer complex, III, 679.

Church, C. F., and Foster, C., diet and resistance to infection. III., III, 208. Churchward, C. R., specific gravity of aqueous ethyl alcohol; temperature cor-

rections, I, 296. Churg, J. See Antopol, W., and Lehr, D.
Chute, A. L., Feldberg, W., and Smyth,
D. H., liberation of acetylcholine from the perfused cat's brain, III, 87.

Chute, W. J., Orchard, W. M., and Wright, G. F., reactions of 5-chloromercuri-2furfuryl alcohol, II, 112.

Chydenius, J. J., radiation effect on human uterus cancer, III, 453.

Cianci, V., and Di Maria, G., effect of phosphate buffers on development of larva of Sarcophaga carnaria, III, 110. and Matarese, G., fermentation of carbo-

hydrates in soil, III, 139. Ciapetta, F, G. See Tomlinson, H. M. Cicardo, V. H., rhythmic contractions of stomach produced by acetylcholine, III, 198.

and Moglia, J. L., release of potassium in muscle of batrachians by electrical stimulation, III, 176. Release of potassium in muscle by acetylcholine, III, 657. Potassium liberated in muscle by acetylcholine in adrenalectomised toads, III, 737.

Ciechanowski, S., retrograde arterial embolism, III, 82. Malignant granulomatosis,

III, 454.

Cieleszky, V. See Bodnár, J. Cinberg, B. L., and Goldman, S. F., potency evaluation of commercial female hormone preparations, III, 676.

Ciner, L. F. See Hellmann, A. M. Cinnamon, C. A., and Martin, A. B., growth conditions for single and optically mosaic crystals of zinc, I, 78.

Ciocco, A., human social biology. II. Disruptivo and cohesive factors in the

marital group, III, 158. Cipollaro, A. C., irradiation in dermatology, III, 792.

Circle, S. J., and Smith, A. K., effect of formaldehyde on isoelectric points of proteins, determined by microelectrophoresis, I, 375.

Citron, M. M. See Sure, B. Clagett, A. H. See Cutts, F. B. Claiborn, L. M. See Geiger, A. J.

Clamann, H. G., and Becker-Freyseng, H., effect of high altitude on pertussis, III,

Clancy, C. W. See Tatum, G. W. Clancy, E. P., induced radioactivity of

krypton and xenon, I, 395.

Clapp, D. B. See Hopper, S. H.

Clapp, (Miss) M. A., Renfrew, (Miss) A. G., and Cretcher, L. H., cinchona alkaloids in pneumonia. IX., II, 381.

Clapp, R. C. See Fieser, L. F. Clapper, T. W. See Whitmore, F. C. Clark, A. R., and Jungeblut, C. W., vitamin-C metabolism in eastern cotton rats, III, 778.

Clark, B. B., and Shires, E. B. S., jun., action of syntropan on uterus, III, 219.

Clark, C. H. D., systematics of band-spectral constants. VII. Empirical form of relations involving group number, I, 319.

and Webb, K. R., systematics of bandspectral constants. VI. Interrelation of equilibrium bond constant and

internuclear distance, I, 319. Clark, C. R. See Powell, R. E. Clark, C. W. See Giauque, W. F.

Clark, D. E., Dragstedt, L. R., and Becker, S. W., use of lipocaic in treatment of psoriasis, III, 698.

Clark, E. A. See Ruffin, J. M. Clark, E. L. See Clark, E. R. Clark, E. M. See Young, W. A.

Clark, E. P., micro-Kjeldahl determination of nitrogen, II, 385.

Clark, E. R., and Clark, E. L., microscopic studies of new formation of fat in living adult rabbits, III, 5.

Clark, F. E. See McCalla, T. M.

Clark, G., temperature regulation in cats with chronic cervical cord transection, III, 854.

See also Wang, S. C.

Clark, G. L., and Roach, P. G., X-ray study of rectifying selenium films, I, 293. and Ross, S., static and dynamic foams

in characteristic units, I, 59.

and Rowan, R., lead oxides. IV. Polymorphic transitions by grinding, distortion, and catalytic activity in PbO. V. Compounds of the type PbOn (n = 1-2), I, 343.

Clark, H. See Cole, W. H.

Clark, H. C., drug prophylaxis and treatment of malaria, III, 908.

Clark, J. H. See Flippin, H. F.

Clark, J. R. See Craig, R.
Clark, K. J. See Boyd, E. M.
Clark, O. R., spinal anæsthesia in general

surgery, III, 913. Clark, P. J. See Huggins, C. Clark, R. B. See Upton, J. R.

Clark, S. E. R. See Bull, L. B.

Clark, S. L., and Ward, J. W., influence of stimulus strength and duration on responses from cortical stimulation through implanted electrodes, III, 663.

See also Kennedy, J. A. Clark, T. F., Porges, N., and Aronovsky, S. I., laboratory-size leaf-type pressure filter, I, 132.

See also Porges, N.

Clark, W. E. Le G., anatomical basis of colour vision, III, 12. Association fibre system of visual cortex and central representation of retina, III, 260. Laminar organisation and cell content of lateral geniculate body of monkey, III, 661.

See also Glees, P.

Clark, W. G., vitamin-B complex and adrenalectomy, III, 573. Maintenance of adrenalectomised guinea-pigs, III,

Clarke, B. G., and Moffet, C. E., silicosis in soft coal miners, III, 620.

Clarke, B. R., and Erskine, S. L. W., late results of artificial pneumothorax in pulmonary tuberculosis, III, 175.

Clarke, E. L. See Boyd, E. M. Clarke, E. T. See Korff, S. A., and Murphy, E.J.

Clarke, G.J. See Bischoff, F. Clarke, J.A., jun., and Leopold, H.C., effect of pollen contact on age of onset of

hay fever, III, 147.
Clarke, M. E. See Boyd, E. M.
Clarke, M. F., Leehycka, M., and Cook, C. A., biological assay of riboflavin, III,

Clarke, T. H. See Brunschwig, A. Clangus, C. E. See Schmidt, L. H. Clausen, J., effect of intraperitoneal blood transfusion, III, 74.

Clausen, N. M. Sec Longley, B. J. Clay, R. C., Cook, K., and Routh, J. I., composition of human hair, III, 110.

Clayson, C., allergy in experimental tuberculosis, III, 56.

Clayton, F. W., Smith, W. L., and Turner, E. L., effect of orange juice on gastrie acidity, III, 678.

Clayton, H. R., method of adjusting the position of electrode pencils in routine spectrochemical analysis, I, 222,

Clayton, W., Howard, A. J., and Thomson, D., oils in treatment of burns, III, 619.

Cleaves, A. P., Sponer, H., and Bonner, L. G., absorption spectra of gaseous methylamine and dimethylamine in photographic infra-red, I, 5.
Clegg, J. W., and Dible, J. H., human

serum in shock, III, 162.

Clegg, L. F. L., bacteriological examination of water samples with reference to direct and secondary incubation at 44°, III,

Clegg, O. See Dubash, J.
Clein, N. W., allergic nose, III, 847.
Clements, F. W., Slater, E. C., and Rial,
E. J., vitamin-B<sub>1</sub> content and importance in the Australian dietary of bread, III,

Clements, L. P., origin and relations of pulmonary macrophages, III, 240.

Clemo, G. R., and Hoggarth, E., attempts to prepare 7-substituted dicyclo[1:2:2]-aza-heptanes, II, 74. 5-Ethinylruban-5-ol and related compounds, II, 341.

Clerc, A., and Quinquaud, A., summation of potentials in heart of dog cut in half transversely, III, 421. Relative positions of monophasic waves in dog heart cut transversely: so-called right and left ventricular extrasystolic complexes, III, 421.

Cleveland, E. L. See Ramsay, B. P. Cleveland, F. F., Raman spectrum of

aqueous potassium cyanate, I, 192. and Murray, M. J., Raman spectra of acetylenes. III. Five monosubstituted and four disubstituted acetylenes. IV. Carbon isotope effect in acetylenes, I, 193, 291. Raman spectrum of n-dodecyl bromide, I, 241. See also Murray, M.J.

Cleveland, R., histology of endometrial tissues of macaques under various experimental conditions, III, 442.

Phelps, D., and Burch, J. C., experimental production of glandular cystic hyperplasia in castrated macaques, IĬÍ, 577.

Clifford, P. A., determination of fluorine, I, 174, 386. Clifford, S. H., effects of asphyxia on

newborn infant, III, 847.

Clifton, C. E. Sec Pickett, M. J. Climenko, D. R., and Barlow, O. W., renal lesions from sulphathiazole, III, 1047.

See also Barlow, O. W., and Robinson, E.J. Cline, E. See Kerr, W. H.

Cline, J. E., and Forbes, G. S., reaction of excited mercury with oxygen, hydrogen sulphide, and nitrous oxide, I, 479. Cline, J. K. See Stein, G. A.

Cloutier, L. See Gagnon, P. E.
Clowes, G. H. A. See Davies, W. W.,
and Krahl, M. E.

Cluver, E. H. See Jokl, E.

Clyman, M., anticatalase activity sulphanilamide and sulphapyridine in vivo, III, 213.

Coates, C. W. See Nachmansohn, D., and Weisman, A.J.

Coates, G. E., intermolecular sharing of hydrogen, I, 151.

Cobb, S., review of neuro-psychiatry for 1940, III, 499.

Coblentz, W. W., and Stair, R., distribution of ozone in the stratosphere: measurements of 1939 and 1940, I, 225.

Coburn, A. F., and Moore, L. V., sulphanilamide in rheumatic subjects, III, 1044.

See also West, R.
Coca, A. F., familial nonreaginic food allergy as predisposing cause of common cold, III, 479.
Cochran, J. See Schultz, R. F.

Cocker, W., preparation of dl-asparagine and dl-aspartic acid, II, 36. Preparation of derivatives of sulphanilamide, II, 39.

and Turner, D. G., preparation of some condensation products of m-dialkylaminobenzaldehydes with compounds containing reactive methylene groups, and an investigation of their suitability

as photographic sensitisers, II, 148. Cockerell, S. L. See Ruegregger, J. M. Cocorullo, O., biological action of metals on development of plants, III, 150.

Code, C. F., and Jensen, J. L., comparison of histamine content of blood and bone marrow, III, 730.

See also Andberg, W.G.

Code, F. L., scattering of mesotrons in tungsten, I, 190.

Codnere, J. T. See Patch, F. S.

Coe, M., Reisman, H. A., and De Hoff, J. periarteritis nodosa in a nine-year-old child, III, 844.

Coffen, T. H., Rush, H. P., and Miller, R. F., traumatic complete heart block of 18 years' duration, III, 973.

Coffey, R. J., and Bargen, J. A., intestinal polyps: pathogenesis and relation to malignancy, III, 445.

Coffin, C. C., platinised glass as a laboratory substitute for massivo platinum, I, 20. and Dingle, J. R., low-pressure gauge, I, 307.

See also Arnell, J. C.

Coffin, H. C., and Van Dyke, H. B., proposed names for follicle-stimulating and interstitial cell-stimulating hormones of anterior lobe of pituitary body, III, 870. Coffman, J. R., and Koch, F. C., effect of

testosterone propionate on induced creatinuria in rats, III, 102.

See also Hoskins, W.H.

Cogan, D. C., corneal cedema, III, 501. Ocular phenomena produced with polarised light, III, 501. Bullous keratitis, with particular reference to pathology of experimental corneal vesiculation, III, 863.

Coggeshall, L. T., occurrence of malaria antibodies in human serum following induced infection with Plasmodium knowlesi, III, 49.

Cohan, L. H., and Meyer, G. E., properties of liquids in fine capillaries. I. Surface tension and density, I, 30.

Cohen, A. L., nutrition of myxomycetes. I. Pure culture and two-membered culture of myxomycete plasmodia, III, 389.

Cohen, E. J. See Shorr, E.

Cohen, H., mechanism of production of cerebrospinal fluid; comparative study of sugar, non-protein-nitrogen, inorganic phosphorus contents of blood and cerebrospinal fluid, III, 857.

and Libman, J., glucose content of cerebrospinal fluid after withdrawal, III, 857. Effect of induced hyperglycæmia on glucose content of cerebrospinal fluid, III, 857. Cohen, I., phrenic nerve interruption for para-œsophageal hernia, III, 511.

Cohen, J. See Korenchevsky, V. Cohen, J. A. Sce Canizares, O.

Cohen, K. See Stewart, D. W. Cohen, L. H. See Haggard, H. W.

Cohen, M., and Kimball, W. P., equilibrium solidification of solid solutions, I, 163. See also Barrett, H. M.

Cohen, M. B., [effect of ascorbic acid lack on] growth and development in guinea-pig, III, 211.

and Weller, R. R., precipitins in sera of patients with clinical allergy, III, 810. Cohen, M.~I.~ See Bridge,  $E.~\widetilde{M}$ 

Cohen, P., congenital intestinal obstruction, III, 362.

Sec also Weichsel, M.

Cohen, P. P., transamination with purified enzyme preparations (transaminase), III, 226. Transaminase activity, III,

See also Maresh, F.

Cohen, R., and Blatt, M. L., urine collector for female infants, III, 203.

Cohen, R. V., and Brodsky, M. L., allergy to

digitalis, III, 812. Cohen, S., and Mueller, J. H., oleic acid in colony development of C. diphtheriæ, III, 627.

Cohen, S. S., and Chargaff, E., chemistry of blood coagulation. IX. Thrombo-plastic protein from lungs. XIII. Phosphatide constituents of thromboplastic protein from lungs, III, 75, 727.

See also Chargaff, E.

Cohn, C. See Soffer, L. J. Cohn, D. J., Kaplan, I., and Janota, M., ester-hydrolysing activity of central nervous system, III, 498.

Cohn, E.J., proteins as chemical substances and as biological components, III, 515. Ferry, J. D., Livingood, J. J., and Blanchard, M. H., crystallisation of

radioactive zinc insulin containing two or more zinc atoms, III, 350.

Luetscher, J. A., jun., Oncley, J. L., Armstrong, S. H., jun., and Davis, B. D., preparation and properties of scrum- and plasma-proteins. III. Membranes with ethanol-water mixtures, III, 968.

McMeekin, T. L., Oncley, J. L., Newell, J. M., and Hughes, W. L., preparation and properties of serum- and plasma-proteins. I. Membranes with ammonium sulphate solutions, III, 968.

Cohn, M., Irving, G. W., jun., and Du Vigneaud, V., amphoteric nature of pressor principle of posterior lobe of pituitary gland, III, 439.
See also Du Vigneaud, V.

Cohn, R. See Katzenelbogen, S. Cohn, R. B. See Cutting, W. C. Cohn, W. F. See Aird, R. B.

Cokkalis, P., and Dedes, D., postoperative reaction and blood group, III, 491.

Colah, R. B. M. See Cooper, R. E. Colbert, J. C., and Hensley, C. L., oxidation of hydroxydiphenyls, II, 224.

Colburn, C. See Grote, I. W. Colby, M. Y., and Hatfield, T. N., apparatus for measurement of a-particle range and relative stopping power of gases, I, 223.

Cole, A. E., working model to demonstrate anatomical relationships of inguinal herniæ, Ill, 318.

Cole, H. A., sex-ratio in Urosalpinx cinerea, the American oyster drill, III, 353.

Cole, J. W., Jones, W. S., and Christiansen, W. G., assay of vitamin- $B_1$  preparations by fluorophotometric method, III, 25.

Cole, K. S., rectification and inductance in squid giant axon, III, 982.

and Baker, R. F., transverse impedance of squid giant axon during current flow, III, 658. Longitudinal impedance in squid giant axon, III, 982.

and Cole, R. H., dispersion and absorption in dielectrics. I. Alternating cur-

rent characteristics, I, 242.

and Curtis, H.J., membrane potential of squid giant axon during current flow, III, 658.

Cole, L. R., cardiac disease among 28,139 newly entering students at the University of Wisconsin, III, 335.

Cole, P. A., and Brackett, F. S., technical requirements in determination of absorption spectra by ultra-violet microscope,

Cole, R. H., dielectric constants of aliphatic

ketones, I, 242. See also Cole, K. S.

Cole, R. K. See Barnes, W. A.

Cole, V. V., Harned, B. K., and Harkesbring, R., toxicity of strontium and calcium, III, 296.

Harned, B. K., and Keeler, C. E. inheritance of glucosc tolerance, III,

See also Harned, B. K.

Cole, W. H., perfusing solution for lobster (Homarus) heart, III, 972.

Clark, H., and Womaek, N. A., cholesterol emulsion for experimental intravenous administration, III, 1086.

See also Allison, J. B.

Colebrook, L., chemotherapy and wound infection, III, 606.

and Francis, A. E., sulphanilamide powder in superficial streptococcal wounds, III, 606.

Coleman, C. C., results of facio-hypoglossal anastomosis in treatment of facial paralysis, III, 88.

Coleman, F. H., sulphapyridine in pneumo-coccal meningitis, III, 291.

Coleman, S. A., and Smith, G. B. L., precipitation of zinc sulphide from a solution of ammonium citrate and citric acid, I, 428.

Coley, J. R. See Komarewsky, V. I.
Collet, L. W., and Gysin, M., Taveyannaz sandstone in the Dents du Midi, I, 488.

Collias, N. E. See Allee, W. C.

Collier, D. R., inoculation of monkeys with leprosy following a diet of colocasia, 111, 1069.

Collier, H. B., plastein formation. II. Chemical changes involved in plastein formation by papain and by pepsin. III. Complexity of peptic plastein in urea solution, III, 134, 137. Enzyme inhibition by derivatives of phenothiazine and of sulphanilamide, III, 225. Trypsin-inhibiting fraction of Ascaris, III, 587. and Allen, D., inhibition of succinic

dchydrogenase by phenothiazone, III,

921. Collin, P. See Dubreuil, G.

Collings, W. D., effect of pseudopregnancy on survival of adrenalectomised cats, III, 263.

See also Remington, J. W., and Swingle, W.W.

Collins, B. T. See De Vries, T. Collins, C. G. See Weinstein, B. B. Collins, D. A., and Hamilton, A. S., pressor responses following short, complete renal ischæmia: characteristics, mechanism, and specificity for kidney, III, 846.

Collins, E. N., treatment of chronic ulcerative colitis with sulphanilamide, III, 124.

Pritchett, C. P., and Rossmiller, H. R., aluminium hydroxide in peptic ulcer, III. 361.

and Van Ordstrand, H. S., review of 1000 consecutive cases of irritable colon; its simulation of surgical conditions and treatment, III, SSI.

Collins, J. L. See White, C. S. Collins, S. D., Gover, M., and Dorn, H., trend and geographic variation in cancer mortality and prevalence, with reference to gastric cancer, III, 589.

Collip, J. B., corticotropic, thyrotropic, and parathyrotropic factors, III, 574.

See also Noble, R. L., and Thomson,

Colmes, A. See Jacobs, J. L.

Colombini, N., filamentous bodies [of mucin and free diffusion of dyes, III, 321.

Colonos, N. F. See Lee, R. C. Colowick, S. P., and Kalckar, H. M., activator of the hexokinase system, III,

Kalckar, H. M., and Cori, C. F., glucose phosphorylation and oxidation in cellfree tissue extracts, III, 289.

See also Sutherland, E. W. Colson, A. F., micro-titrimetrie determination of carbon dioxide in carbonates, 1, 57.

Colson, Z. W., effect of alcohol on vision, III, 259.

Coltrin, G. See Bassett, A. M.

Colwell, R. C., and Gibson, L. H., sound velocities in gases under different pressures, I, 368.

Colver, F., caries of teeth in gorilla, III, 18. Variations of teeth of Preuss' Colobus. III, 68. John Hunter and transplantation of teeth, III, 951.

Coman, D. R., chemotaxis of monocytes contrasted with that of polymorphonuclear leucocytes and lymphocytes, III,

Combes, F. C., and Behrman, H. T., xanthoma eruptivum (xanthoma diabeticorum), IIÎ, 901.

and Canizares, O., sulphanilamide and allied compounds, their value and limitations in dermatology, III, 1047.

Combes, T.J.C., effect on blood-calcium of prolonged treatment with parathormone; influence of temperature, Ill, 753. Combiesco, C. See Soru, E.

Comea, J., thymectomy in guinea-pigs, III, 184. Effect of thymus extracts on genital development in guinea-pigs, III, 184. Effect of thymus extract thymectomised guinea-pig, III, 184.

Comfort, M. W., tests of pancreatic function, III, 362. Laboratory aids in diagnosis

of pancreatitis, III, 880. and Osterberg, A. E., pancreatic secretion in man, 111, 104.

See also Kearney, R. W., and Snell, A. M. Common, R. H., mineral metabolism of pullets. V. Acid-base equilibrium and reproductive activity, III, 691. Carbonic anhydrase activity of hen's oviduct, III, 1009.

and Hale, R. W., mineral metabolism of pullets. VI. Mobilisation of bodycalcium for shell formation, III, 1042.

Commoner, B., and Thimann, K. V., relation between growth and respiration in the Avena colcoptile, III, 403.

Compton, A. D., jun., photo-electric temperature control, I, 389.

Compton, A. H., effect of an eclipse on cosmic rays, I, 145.

Compton, J., and Haver, F. E., jun., developing cotton fibre. II. Identification and estimation of reducing sugars,

Conant, J. B., Cramer, R. D., Hastings, A. B., Klemperer, F. W., Solomon, A. K., and Vennesland, B., metabolism of lactic acid containing radioactive carboxyl carbon, III, 380.

Conant, J. S. See Scott, O. E.

Conant, N. F. See Rhodes, P. H., and Swartz, J. H.

Condon, E. U., nuclear physics, III, 133. Condorelli, F., technique and mechanism of Takata reaction, III, 143.

Cone, N. See Krantz, J. C., jun. Cone, W. V. See Stewart, O. W. Congdon, E. D., and Edson, J. N., cone of

renal fascia in adult white male, III,

Conger, T. W., and Elvehjem, C. A., biological assay of pyridoxine (vitamin- $B_6$ ), III, 519.

Conley, T. N., adamantinoma of craniopharyngeal duct, III, 1006.

Conn, G. K. T., Lee, E., and Sutherland, G. B. B. M., vibration spectra of condensed gases at the temperature of liquid

nitrogen. I. Infra-red spectra, I, 97.
Conn, J. B., Gregg, D. C., Kistiakowsky,
G. B., and Roberts, R. M., heats of
organic reactions. XI. Denaturation
of pepsin by alkali, I, 467.

Sec also Boyd, W. C. Conn, J. W., spontaneous hypoglycamias,

III. 331. Connell, J. H. See McFarland, O. W. Connell, K. See Woodbridge, P. D.

Connell, W. F. See Boyd, E. M.
Connelly, J. W. See Swanson, L. E.
Connelly, E., therapeutic shock in psychiatry, III, 860.

Conner, R. T., Kao, H. C., and Sherman, H. C., relationship between plane of protein intake and rate of calcification during growth, III, 691.

and Straub,  $\hat{G}$ . J., combined determination of riboflavin and aneurin in food products, III, 684. Determination of aneurin by thiochrome reaction, III,

Connerley, M. L. See Rector, L. E. Connole, J. V., vaccine treatment of facial paralysis, III, 858.

Connolly, C. J., fissural pattern in brain of negroes and whites; the frontal lobes, III, 721.

Connolly, J. I., engineering services in industry other than control of occupational diseases, III, 467.

Connor, R. See Barr, E., De Benneville, P. L., McClellan, W. R., Urquhart, G. G., and Ziegler, W. M.

Conrad, A. H. See Weiss, R. S. Conrad, A. H., jun. See Weiss, R. S.

Conrad, C. C. See Briggs, T. R.
Conrad, C. M. See Whistler, R. L.
Conrad, R. M., effect of high temperature on blood-calcium of laying hens, III,

167. and Warren, D. C., alternate white and yellow layers of yolk in hens' ova, III, 114.

Conroy, H. W., standardisation of sulphuric acid, I, 482.

Consolazio, F. See Forbes, W. H.

Consolazio, W. V., and Dill, D. B., determination of sodium, III, 407.

and Talbott, J. H., extraction and determination of 17-ketosteroids in urine, III, 17.

See also Talbott, J. H.

Console, A. D., and Rahn, O., gelatin digestion by Bacillus subtilis, III, 49.

Constam, G., treatment of hamorrhage and use of blood substitutes, III, 74.

Conti, O. See Fournier, J. C. M.

Converse, W. See Hearne, G.
Conway, E.J., palæochemistry of the ocean,
I, 225. Physiological origin of cellular potassium, III, 515.

See also Boyle, P. J. Conway, H., sweating function of transplanted skin, III, 450.

Conway, W. J., modified lecture experiment, I, 60.

Cook, A. H., chromatographic analysis, I, 425.

Downer, J., and Hornung, B., diarylmaleonitriles, II, 323.

and Jones, D. G., cis-azo-compounds. IV. Reactions with diphenylketen, II, 166. Triazine and glyoxaline series, II, 205.

See also Anker, R. M.

Cook, C. A. See Clarke, M. F. Cook, E. M. See Menzel, D. II.

Cook, E. N., chemotherapy in urology, III,

and McCannel, D. A., sulphathiazole in treatment of gonorrhea, III, 905.

Cook, E. S., Hart, M. J., and Stimson, (Miss) M. M., proliferation-promoting properties and ultra-violet absorption spectra of yeast fractions, III, 303.

and Kreke, C. W., ability of respiratory stimulants to overcome toxic action of germicides on moulds, III, 228.

Kreke, C. W.. Giersch, M. C., and Schroeder, M. P., growth-depressant substance from yeast, III, 797. See also Nutini, L. G.

Cook, E. W., inexpensive mouse cage, III,

Cook, J. G., and Robinson, (Sir) R., synthesis of substances related to sterols, XXXI., II, 295.

Cook. J. W., bile acids of elasmobranch fish, III, 447.

Hewett, C. L., Kennaway, E. L., and Kennaway, N. M., effects produced in livers of mice by azonaphthalenes and related compounds, III, 204.

See also Badger,  $\hat{G}$ . M., Carver, J. S., and Heiman, V.

Cook, K. See Clay, R. C.
Cook, M. M. See Stoesser, A. V.
Cook, R. P. See Campbell, H. G.
Cook, T. H. See Gilman, H.
Cook, W. H. See Thistle, M. W., and

Woodcock, A. H.

Cooke, B., and Best, R. J., inactivating effect of salicylate on suspensions of animal viruses, III, 1074.

Cooke, H. C., metamorphic origin of selenite, I, 488.

Cooke, H. G., jun. See Marvel, C. S. Cooke, R. A. See Sherman, W. B., and Stull, A.

Cooke, R. T. See Smith, F. B. Cookson, H. A., and Stock, C. J. H.,

santonin poisoning, III, 464. See also Robson, S.

Cooley, T. B., hereditary factors in blood dyscrasias, III, 828.

Coombs, C. H., mathematical biophysics of galvanic skin response, III, 983.

Coombs, F. S. See Talbott, J. H.

Coon, J. B., vibration analysis of chlorine dioxide absorption spectrum, I, 147.

Coon, J. M. See Smith, B., jun. Coons, A. H. See Muus, J.

Coop, I. E., eyanogenesis in white clover (Trifolium repens, L.). III. Linamarase, the enzyme which hydrolyses lotaustralin, III, 944.

See also Melville, JCooper, E. P., and Nelson, E. C., ground states of <sup>10</sup>Be and <sup>10</sup>C, I, 68.

Cooper, F. B. See Gross, P. Cooper, F. S. See Zahl, P. A.

Cooper, G. R. See Neurath, H., and

Vosburgh, W. C.

Cooper, M. L., and Keller, H. M., sulphanilamide, sulphapyridine, and sulphathiazole and experimental Shigella paradysenteriæ infections in mice, III, 693. Sulphonamide drugs in treatment of experimental dysentery infection in mice, IIÎ, 906.

Cooper, R. E., and Colah, R. B. M., effect on formation of carbohydrates in leaves of omission of red and blue-violet rays from electric light, III, 817.

Cooper, R. J. See Olsen, R. E.

Cooper, W. C., vitamins and germination of pollen grains and fungus spores, III, 816.

Cope, A. C., and Hardy, (Miss) E. M., introduction of substituted vinyl groups. VI. Regeneration of substituted vinylmalonic esters from their sodium enolates, II, 85.

Heyl, (Miss) D., Peck, D., Eide, C., and Arroyo, A., 1:3-dimethyl-5-alkylbar-bituric acids, II, 149.

Hofmann, (Miss) C. M., and Hardy, (Miss) E. M., rearrangement [migration] of allyl groups in three-carbon systems. II., II, 279.

and Hoyle, (Miss) K. E., introduction of substituted vinyl groups. VII. Alkylidene- and substituted vinyl-alkyl-

malononitriles, II, 161.

Hoyle, (Miss) K. E., and Heyl, (Miss) D., rearrangement [migration] of allyl groups in three-carbon systems. I., II, 279.

Cope, C. L., pregnanediol excretion in pregnancy toxemia, III, 101. Pregnanediol excretion in pregnancy disorders, III, 195.

Cope, E. P. See Schwartz, Louis. Copeland, L. C., and Short, O. A., ternary systems ZnSO<sub>4</sub>-H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O from -5° to 70° and ZnO-SO<sub>3</sub>-H<sub>2</sub>O at 25°, I, 115.

Copeland, P. L., secondary emission from films of platinum on aluminium, I, I.

Copenhaver, J. E. See Wallace, J. M.jun.

Copenhaver, W. M., and Detwiler, S. R., developmental behaviour of Amblystoma eggs subjected to solutions of indolylbutyrie acid, III, 412.

Coplans, M. See Green, A. G. Copley, G. N., structure of phosphorus chloronitrides, I, 6. Formulation of ion electronically, I, 29. Critical con-stants and van der Waals' equation, I, 78. Mathematics and science, I, 160. Viscosities of three classes of liquids, I, 161. Parachor of diborane, 1, 324. Parachors of bonds. I., I, 451.

Copley, M. J., Ginsberg, E., Zellhoefer, G. F., and Marvel, C.S., hydrogen bonding and solubility of alcohols and amines in organic solvents. XIII., I, 108.

See also Marvel, C. S.

Copp, D. H., and Greenberg, D. M., studies in mineral metabolism with aid of artificial radioactive isotopes. VI. Cobalt, III, 526.
Coppée, G., effect of temperature on

properties of decalcified nerve, III, 253. Thermal coefficients of two time characteristics of decalcified nerve, III, 253.

Coppen, F. M. V. See Blair, G. W. S. Copulsky, W., upper limit of temperature, I, 96.

Corben, H. C., and Schwinger, J., electromagnetic properties of mesotrons, I, 70. Corbett, (Miss) G. See French, H.S.

Corbin, K. B., peripheral distribution of fibres arising in mesencephalic nucleus of fifth cranial nerve, III, 430.

and Harrison, F., function of mesencephalic root of fifth cranial nerve, III,

Corboy, P. M., Van der Hoeve's syndrome, III, 501.

Corcoran, A. C., Kohlstaedt, K. G., and Page, I. H., changes of arterial blood pressure and renal hæmodynamics by injection of angiotonin in human beings, III, 735.

and Page, I. H., effects of renin on renal blood flow and glomerular filtration, III. 81. Arterial hypertension, III, 497. Effects of angiotonin on renal blood flow and glomerular filtration, III, 497. Renal function in late toxemia of pregnancy, III, 514.

See also Fouts, P. J. Corcoran, D. R. See Scudder, J.

Corey, E. L., and Britton, S. W., glycogen levels in isolated liver perfused with corticoadrenal extract, insulin, and other preparations, III, 768. Diabetes insipidus following hypophysectomy in rat, III, 1008.

See also Britton, S. W.

Corey, R. B. See Levy, H. A. Cori, C. F. See Bear, R. S., Colowick, S. P., and Sutherland, E. W.

Cork, J. M., production of characteristic X-rays by deuteron bombardment, I,

Corkill, A. B., and Ennor, A. H., effect of thiol compounds on action of insulin, III,

Corkill, L., cyanogenesis in white clover (Trifolium repens, L.), I., III, 944. Corlette, M. B. See Patton, E. W.

Cormia, F. E., post-arsphenamine dermatitis and its relation to vitamin-C, III, 696. Food sensitivity as factor in ætiology of acne vulgaris, III, 811.

Cornbleet, T., and Barnes, B., androgen and xanthomatoses, III, 870.

Corner, G. W., corpus luteum hormone, 111, 510. Rate of secretion of cestrogenic hormones by ovaries of rhesus monkey, III, 871.

Corner, H.H., and Smith, A.M., cobalt and pine disease, III, 130.

Corner, J., constants of Beattie-Bridgman

equation, I, 365. and Lennard-Jones, J. E., critical and co-operative phenomena. VI. Neighbour distribution function in monatomic liquids and dense gases, I, 451.

Corner, J. Sec also Lennard-Jones, J. E. Corner, (Miss) M., and Hunter, H., precision of weighing with microchemical balances, I, 224.

Cornforth, J. W., and Earl, J. C., sarcostin. I. Preliminary study of its behaviour with reagents, II, 19.

Cornog, J., and Olson, L. E., iodine monochloride. III. Systems iodine monochloride-acetic acid and iodine monochloride-carbon tetrachloride, I, 115.

Cornog, R., and Libby, W. F., production of radioactive hydrogen by neutron bombardment of boron and nitrogen, I,

Correll, H. See Murphy, F. D. Correll, J. T., biological response of chickens to organic acids and salts with reference to effect on ossification, III, 1032.

Correns, C. W., and Steinborn, W., measurement and explanation of so-called "crystallisation force," I, 202.
Corsaro, J. See Duffy, P. V.
Corse, J. See Fuson, R. C.

Corson, B. B. See Ipatieff, V. N.

Corson, D. R., MacKenzie, K. R., and Segrè, E., artificially radioactive element 85, I, 24.

Corson, E. F., Decker, H. B., and Williams, T. L., mobilisation of bismuth pro-duced by ammonium chloride, III, 220.

Cortell, R. See Feldman, J., Gellhorn, E., and Rogoff, J. M.

Cortesi, R., reagent for lignin, III, 714.

Corwin, A. H., and Krieble, R. H., pyrrole series. V. Reinvestigation of configuration of hæmin, II, 338.

Corwin, W. W., and Voth, A. C., results of metrazol treatment in psychotics, III,

Coryell, C. D., and Stitt, F., magnetic studies of ferrihæmoglobin reactions. II. Equilibria and compounds with azide ion, ammonia, and ethyl alcohol, II, 275.

Cosby, J. N. See Whitmore, F. C. Cosslett, V. E., magnetic lens for  $\beta$ -rays of high energy, I, 23. Costa Ribeiro, J., high radium content of a

Brazilian mineral, I, 227.

Costeanu, R. N., reducing power of sodium hydrogen sulphite, I, 87

Costello, D. P., fertilisability of nucleated and non-nucleated fragments of centrifuged Nereis eggs, III, 4.

Costello, M. J., skin eruption of pregnancy. III, 677.

Cotler, H. Y., Kirchner, M. T., and Romano, M., recognition of sulphapyridine-fast pneumococci, III, 785.

Cotter, J. See Hartung, E. F. Cotton, F. S., respiration. III. Effect of expiratory speed on depth of oxygen trough of progressive expiration, III,

Cottrell, L., histologic variations with age in apparently normal peripheral nerve trunks, III, 253.

Co Tui. See Shafiroff, B. G. P.

Couch, J. F., and Briese, R. R., eyanogenesis and enzyme activity in sorghum, III, 61. Use of chloroform to accelerate cyanogenesis in analysis of cyanogenetic plants, III, 943. See also Briese, R. R.

Couch, J. H., glomus tumours, III, 496. Couch, J. R. See Snell, E. S. Coull, J. See Shields, J. R

Coulson, C. A., charge distribution and dipole moment of the C-H bond, I, 6. Momentum distribution in molecular systems. I. The single bond. III. Bonds of higher order, I, 100. Van der Waals force between a proton and a hydrogen atom, I, 449. and Duncanson, W. E., momentum

distribution in molecular systems. II. Carbon and the C-H bond, I, 100.

See also Duncanson, W. E.

Coulson, E. J., and Stevens, H., sensitisation of guinea-pigs with alum-precipitated ragweed extract, III, 397. Antigenic relationship of cotton linters, dust, and dust precursors, III, 479.

Coulston, F., use of diaphane for mounting

Giemsa type preparations, III, 489. Coulter, L. V., Pitzer, K. S., and Latimer, W. M., entropies of large ions; heat capacity, entropy, and heat of solution of potassium chloroplatinate, tetramethylammonium iodide, and uranyl nitrate hexahydrate, I, 48.

Coumoulos, G. D., and Rideal, E. K., electron diffraction of multilayers of esters of fatty acids. II., I, 466.

See also Cameron, A.

Couper, M., Kibler, C. J., and Lutz, R. E., sodium hydrogen dimethylmaleate, II,

See also Lutz, R. E.

Cournand, A., and Ranges, H. A., catheter-isation of right auricle in man, III, 650. Court, D., malignant hypertension in childhood, III, 654.

Courtade, R. See Urbain, A.
Courtice, F. C., oxygen lack and cerebral
circulation, III, 980. Gaseous tensions in brain, III, 981. Courville, C. J. See Wile, U. J.

Cowan, D. M., and Vogel, A. L., physical properties and chemical constitution. VI. Saturated and unsaturated cyanoesters, I, 30.

Cowan, D. W. See Diehl, H. S. Cowan, J. C. See Marvel, C. S.

Cowan, S. L., action of eserine-like compounds on frog's nerve-muscle preparations. I. Conditions in which a single shock evokes augmented muscular response. II. Blocking of neuromuscular conduction, III, 86.

Scott, R. D., and Suffolk, S. F., Oxford vaporiser, No. 2, III, 1051. Performance of Oxford vaporisers with

ether, III, 1051.

Coward, K. H. See Folley, S. J.
Cowdry, E. V., properties of cancer cells,
III, 282. Cytology of acid-fast III, 282. Cytology of acid-fast bacterial diseases of the leprosy group, III, 473.

and Paletta, F. X., alterations in nuclear viscosity during experimental carcino-genesis determined by ultracentri-fugation, III, 772. Changes in cellular, nuclear, and nucleolar sizes during methylcholanthrene epidermal carcinogenesis, III, 1029.

and Scott, G. H., effects on monkeys of small doses of a concentrated preparation of viosterol, III, 120

Cowgill, G. R. See Street, H. R.

Cowie, D. B., and Scheele, L. A, radiation protection in hospitals, III, 1058. Cowing, R. F. Sec Warren, S.

Cowles, R. B., winter activities of desert

reptiles, III, 886.
Cowling, H., [determination of] zine in plants, III, 942.

Cowling, H., and Miller, E. J., determination of zine in plant materials, III, 713. Cox, A. J., jun. See Wilson, R. H. Cox, E. H., and Raymond, S. M., aryl-

sulphonylcarbamides, II, 93.

Cox, G. J., and Matuschak, (Miss) M. C., abbreviation of method of least squares, I, 224.

Cox, H. S. See Saffry, O. B.

Cox, R. T., and Ponder, E., diffractometer, III, 946.

See also Nachmansohn, D.

Cox, S. M., refractive index determination,

Cox, W. F., and Sykes, C., precipitation in alloys of copper and silver during agehardening, I, 8.

Coxon, R. V., and Crawford, J. P., sulphhamoglobinamia following prolonged administration of phenacetin, III, 244.

Coy, (Miss) N. H., and Sponer, H., emission spectrum of antimony nitride, I,

Coyne, A. R. See Katzenelbogen, S.

Crabb, E. D., multi-coloured wax light filter and dissecting chamber holder for microscopes, I, 222. and Kelsall, M. A., organisation of

mucosa and lymphatic structures in rabbit appendix, III, 320.

Crabtree, C., structure of Bowman's capsule as index of age and sex variations in normal mice, III, 549.

Crabtree, H. G., retardation of rate of tumour induction by substances which inhibit glycolysis, III, 113. Stimulation of tumour induction by an inhibitor of cell glycolysis, III, 278. Retardation of rate of tumour induction by hydrolysing chloro-compounds, III, 278.

and Gray, L. H., influence of wavelength on biological effectiveness of radiation, III, 44.

Crabtree, J. A., familial incidence of cancer, III, 453.

Crackston, J. E. See Wood, R. G.

Craddock, G. B., and Bowers, R. V. recurrent pneumococcal meningitis treated with sulphapyridine, III, 460.

Crafoord, C., and Jorpes, E., heparin in prevention of thrombosis, III, 966. Cragg, J. B. See Beadle, L. C.

Cragg, R. W., and Osterberg, A. E., nicotine poisoning in child, III, 132.

See also Rushton, J. G.

Cragoe, C. S., slopes of pv isotherms of helium, neon, argon, hydrogen, nitrogen, and oxygen at 0°, I, 405.

Craig, D. P. See Mellor, D. P.

Craig, H. R. See Alexander, H. E.

Craig, J. S., simple stain for tissue cultures, III, 242.

Craig, L. C., micro-apparatus for fractional recrystallisation, I, 132.

and Jacobs, W. A., veratrine alkaloids. VIII. Selenium dehydrogenation of cevine. X. Structure of cevanthridine, II, 272

Jacobs, W. A., and Lavin, G. I., veratrine alkaloids. IX. Nature of hydrocarbons from dehydrogenation of cevine, II, 272.

See also Jacobs, W. A.

Craig, R., and Clark, J. R.,  $p_{\rm H}$  and buffer value of blood of larvæ of Pieris  $rap_{\rm E}$ , L., and Heliothes obsoleta, F., Ill, 166.

Craig, W. McK., and Shelden, C. H., tumours of cervical portion of spinal cord, III, 254.

Craig, W. McK. See also MacLean, A. R., Moersch, F. P., Smith, Lucian A., and Woltman, H. W.

Craige, A. H., and Beck, J. D., convulsions in pig with low blood-calcium and

-phosphorus, III, 860.

Craige, B., fatal bronchial asthma, III, 497. Craigie, E. H., capillary bed of central nervous system of Dermophis, 1II, 65. Area of distribution of middle cerebral artery in birds, III, 153. Vascularisation in brains of reptiles. I. Chrysemys picta marginata. II. Cerebral capillary bed in Sphenodon punctatus, III, 545, 821. Cerebral cortex in birds, III, 663. Capillary bed of central nervous system in Siphonops, III, 821. Craik, K. J. W., instruments and methods

for measuring sensory events, III, 346. and Vernon, M. D., nature of dark adaptation, III, 749.

Crain, D. C., treatment of rheumatoid arthritis, III, 529.
Cramer, R. D., and Kistiakowsky, G. B.,

synthesis of radioactive lactic acid, II, 118.

See also Conant, J. B.

Crampton, E. W., and Purdy, T. L., pasture studies. XIX. Apparatus for continuous extraction of moisture and fat from biological materials, III, 715.

Crandall, L. A., jun., ketosis in man and dog, III, 525.
Ivy, H. B., and Ehni, G. J., hepatic acetone body production in dog during fasting and fat feeding, III, 1018.

See also Ackerman, D. F., and Winter, I. C.

Crandon, J. H. See Lund, C. C. Crane, H. R. See Oleson, N. L. Craske, N. See Sargant, W.

Crawford, A. S. See Schnedorf, J. G. Crawford, B. L., jun., and Brinkley, S. R., jun., force constants in organic molecules, I, 101.

and Wilson, E. B., jun., normal vibrations of molecules with internal

torsional motions, I, 237. Crawford, (Miss) H. M., reaction between 2-methylnaphthaquinone and magnesium phenyl bromide, II, 194.

Crawford, J. P. See Coxon, R. V.

Crawford, M., molecular compounds of phenylacetic acid and its salts, I. acovalent compound of sodium, II, 223. Crawford, M. F. See McCutcheon, J. W.

Crawford, T. C. See Van Valkenburgb,

Creech, H. J., carbimides of 3:4-benzpyrene and 10-methyl-1:2-benzanthracene, II, 129.

Crefeld, S. van, and Heybroek, N. J., Albers-Schönberg disease (marble bones), III, 238.

Creighton, H. B. See Avery, G. S., jun. Creighton, M., and Evans, B. H., effect of X-rays on germ cells of Chorthippus longicornis, III, 721.
Creighton, M. M. See Anderson, Rudolph

Creighton, R. H. J., McCarthy, J. L., and Hibbert, H., aromatic aldehydes from spruce and maple woods, II, 107. Crellin, H. G. Sce Hicken, N. F.

Cremer, J., experimental storage of iron and changes of blood count, III, 246. and Schmidt, W., effect of diphtheria antitoxin on monocyte count, III, 73. Crespi Gherzi, R. A., formation of pentathionic acid, I, 305.

Cressman, R. D. See Dawson, J. R. Creswell, G. W., and Roth, G. B., fatality after mapharsen [in syphilis], III, 916. Cretcher, L. H. See Clapp, (Miss) M. A. Creutz, E. C., Barkas, W. H., and Furman,

N. H., y-radiation from rhenium, I, 69.

See also Delsasso, L. A., and White, M. G.

Creveld, S. van. See Biemond, A., Bouman,

H. D., and Ellis, R. W. B. Crew, F. A. E., contributions of genetics

to reconstructive medicine, III, 4. and Auerbach, C., "pigtail," a hereditary abnormality in Mus musculus, III, 157.

Cridland, N., measurement of heterophoria. I. and II., III, 432, 501.

Criep, L. H., allergy to pancreatic tissue extract, III, 633.

Crile, G., jun., increasing operability rate for cancer of stomach, III, 444. Local use of sulphonamide drugs, III, 907.

Crismon, C. A., Hanvey, R. V., and Luck, J. M., effects of adrenaline, potassium, pentobarbital, and insulin on concentration of amino-acid-nitrogen in blood of fasting dogs, III, 332.

Crisp, L. R. See Brubach, H. F. Crist, R. H. See Taylor, A. H., jun.

Critchfield, C. L., excited states of nuclear particles in meson-pair theory, I, 96.

and Teller, E., angular distribution of a-particles produced in Li-proton reaction, I, 360.

and Wigner, E. P., antisymmetrical interaction in  $\beta$ -decay theory, I, 438.

Crohn, B. B. See Yunich, A. M. Cromartie, W. J., infection of normal and passively immunised chick embryos with Corynebacterium diphtheriæ, III, 801.

Cromer, J. K., wheat-germ oil (vitamin-E) in treatment of habitual and threatened

abortion, III, 510. Cromwell, N. H., aβ-unsaturated aminoketones. II.  $\alpha$ - and  $\beta$ -Morpholinobenzylideneacetophenones. III. a- and Morpholinobenzylideneacetone. Mechanism of reaction of a-bromo-aβ-unsaturated ketones with sec. amines, II, 109, 177, 271.

Cronheim, G., catalytic action of natural mineral waters, I, 214.

Cronin, A. G. See Loofbourow, J. R.Crook, E. M., system dehydroascorbic acidglutathione, III, 469.

Crooks, H. M., jun. See Marker, R. E. Croshie, A., and Scarborough, H., stored blood. VI. Erythrocytes, III, 416. Activation of thromboplastin by hæmolysis and by lecithin, III, 418.

Scarborough, H., and Thompson, James C., stored blood. V. Coagulation mechanisms, III, 162.

Crosby, E. C., and Humphrey, T., vertebrate telencephalon. II. Nuclear pattern of anterior olfactory nucleus, tuberculum olfactorium, and amygdaloid complex in adult man, III, 664.

Cross, E. See Sahyun, M.

Cross, L. C., and Jones, E. R. H., constituents of the higher fungi. II. Unsaturated system of polyporenic acid A, II, 19.

Crossley, H. L., aspects of chemistry of infectious diseases, III, 801.

Crossley, M. L., Kienle, R. H., Vassel, B., and Christopher, G. L., polarographic study of blood sera in experimental pneumonia in dogs, III, 838.

Vassel, B., and Christopher, G. L., cystine content of hydrolysates of sera in experimental pneumonia in

dogs, III, 838.
Crosson, J. W. See Jones, R. R.
Crouch, W. W., and Lochte, H. L., isomerisation in Bouveault-Blane reduction of methyl hydrogen camphorates, II,

Croup, A. H. See Goldblatt, L. A. Crowden, G. P., and Lee, W. Y., sensations of heat and moisture, III, 261, 467.

Crowe, H. W., oral sepsis in relation to rheumatic conditions, III, 18.

Crowe, T. B., phenothiazine in "heaves." III, 1050.

Crowell, W. R., Luke, W. W., and Mastin, T. G., determination of iron by Zimmerman-Reinhardt method; effects of temperature, and determination of blank, I, 176.

Crowfoot, (Miss) D. See Bernal, J. D., and Carlisle, C.H.

Crozier, W. J., law for minimal discrimination of intensities. IV.  $\Delta I$  as function of intensity, III, 11.

and Wolf, E., flicker response contour for *Phrynosoma*, III, 259. Simplex flicker threshold contour for zebra finch, III, 749. Theory and measurement of visual mechanisms. IV. Critical intensities for visual flicker, monocular and binocular. V. Flash duration and critical intensity for response to flicker, III, 749.

Cruess, W. V. Sco Hussein, A. A. Cruickshank, A. H., anti-lymphocytic serum, III, 772.

Cruickshank, D. B., natural occurrence of zinc in teeth, III, 18.

Cruickshank, E. M., effect of diet on chemical composition, nutritive value, and hatchability of the egg, III, 455.

Cruickshank, E. W. H., and Kosterlitz, H. W., fat utilisation by mammalian heart, III, 247.

Cruickshank, R., complement fixation test in diagnosis of meningococcal meningitis,

Cruickshank, W. H., psychoses associated with pregnancy and puerperium, III,

Crumbie, J. R. See McGregor, J. S.Crump, A. C. See Ball, R. P.

Cruzan, C. G., and Miley, H. A., cuprouscupric oxide films on copper, I, 374. Csermely, H., cellular lesions in senile dementia, III, 995.

Cnajunco, F., development of neuromuscular spindles in human fœtus, III,

Culbertson, J. B., danger of peroxide formation, II, 118.

Culbertson, J. L., and Winter, L. L., compressed films at solid-liquid interfaces, I,

Culbertson, J. T., elimination of tapeworm Hymenolepis fraterna from mice by atebrin, III, 217. Specific chemotherapy of Giardia infections [by atebrin], III, 909.

and Rose, H. M., skin reactions to antigens from heterologous cestodes in echinococcus disease, III, 1082.

See also Rose, H.M.Cullen, B. L. See Maxwell, C. H. Cullen, G. E., and Wilson, A. T., levels of sulphapyridine in blood of children following dosage by body-weight, III, 214. See also Holmes, F. E.

Cullen, S. C., Ziffren, S. E., Gibson, R. B., and Smith, H. P., anæsthesia and plasma-prothrombin, III, 327.

Culler, A. M., visual efficiency in industry, III, 500.

Cullinane, N. M., improvement in mixing starch solution, I, 174.
Cullyford, J. S. See Topping, N. H.

Culp, O. S., sulphonamide treatment of gonococcal urethritis, III, 905.

Cummer, C. L., and Larocco, C. G., ulcers of legs in sickle cell anæmia, III, 243.

Cummerow, R. See Siegel, S. Cummings, C. S., and Bleakney, W., products of ionisation by electron impact in methyl and ethyl alcohol, I, 150.

and Tonks, L., influence of a longitudinal magnetic field on an electrical discharge in mercury vapour at low pressure, I, 234.

Cummings, R. W. See Reed, J. F. Cummins, H., and Spragg, S. D. S.,

dermatoglyphics in chimpanzee: description and comparison with those in man, III, 320.

Waits, W. J., and McQuitty, J. T., breadths of epidermal ridges on finger

tips and palms, III, 318.
Cummins, S. L., anthracite dust and tuberculosis, III, 298.

Cunningham, A. A., anaphylaxis after tetanus toxoid, III, 313.

Cunningham, B., and Kirk, P. L., differential micro-respirometer, III, 715.

Kirk, P. L., and Brooks, S. C., quantitative drop analysis. XIV. Potentiometric determination of chloride. XV. Determination of potassium, I, 345.

See also Sisco, R. C. Cunningham, O. C., and Addington, L. H., physiological effect of a limited ration on

dairy cows, III, 1033.
Cunningham, R. L. Sce Steacie, E. W. R.
Cunningham, R. N. Sce Peters, B. A. Cupr, V., polarisation of redox electrodes,

Curl, H. See Ackerman, D. F. Curran, B. C., electric moments of mercuric

halides in dioxan, I, 322. Curtin, T., Fitzgerald, G., and Reilly, J., production of phoenicin on synthetic media. I. Penicillium phoeniceum, van Beyma. II. P. rubrum, Grasphoeniceum, van Beyma. II. P. berger-Stoll, III, 304.

and Reilly, J., sclerotiorin, C<sub>20</sub>H<sub>20</sub>O<sub>5</sub>Cl (?), metabolic product of *Penicillium* sclerotiorum, van Beyma, III, 138.

Curtis, A. C. See Horton, P. B. Curtis, G. M. See Klassen, K. P. Curtis, H. J., intercortical connexions of corpus callosum as indicated by evoked potentials; analysis of cortical potentials mediated by the corpus callosum, III, 342.

See also Cole, K. S. Curtis, M. R. See Dunning, W. F.

Curtiss, J.A., determination and separation of copper with benzotriazole, I, 387.

Curtiss, L. F., integrating circuit for vapourtype Geiger-Müller counters, I, 59. Cusack, W.J., calcium therapy in puerperal infections, III, 529.

Cushing, M. L. See Caesar, G. V.
Cushing, R. W., sulphonamides in cerebrospinal fever, III, 291.

Cushman, M. See Butler, A. M.

Cusick, P. L., and Hawn, H. W., prism compensation in cases of anisometropia, III, 501.

Cuthbert, F. L., petrography of two Iowa loess materials, I, 356.

Cutler, E. C. See Blotner, H.

Cutler, J. W., standardised technique for sedimentation rate, III, 244.

Cutler, M. See Owen, S. E.

Cutting, R. A. See Koppanyi, T., and Lands, A. M.

Cutting, W. See Dobson, L. Cutting, W. C., Morton, M. C., and Cohn, R. B., subcutaneous administration of insulin by pellets, III, 571.

and Robson, G. B., clinical trials with insulin-quinine mixtures by mouth in diabetics, III, 438.

See also Hanzlik, P. G.

Cuttle, T. D. See Barnes, C. A.

Cutts, F. B., Clagett, A. H., and Fulton, F. T., precordial electrocardiogram and cardiac infarction, III, 650.

Cutuly, E., implantation of hormonal substances in anterior chamber of eye of rats, III, 261. Autoplastic grafting of anterior pituitary in male rats, III, 868.

Cuyler, W. K., and Baptist, M., extraction of urinary androgens preliminary to colorimetric quantitation by Oesting's technique, III, 443.

See also Hamblen, E. C., and McCullagh,

Cytronberg, S., early diagnosis of gastric cancer, III, 1014.

Czarnecki, J. D. See Bruins, P. F. Czekalowski, J. W., stored blood. Effect of sodium sulphapyridine, albucid soluble, and  $p_{\mathbf{H}}$  on phagocytosis, III, 643. Czurda, V., new autotrophic, thermophilic sulphur bacterium, III, 140.

## D.

Dabholkar,  $V.\ D.$  See Taylor,  $H.\ J.$  D'Abreu,  $A.\ L.$ , asthmatic attack seen through a bronchoscope, III, 176. Dacey, J. R. See Arnell, J. C. Dacie, J. V., autohæmolysis in familial acholuric jaundice, III, 550. Dack, S. See Master, A. M. Da Costa, E. See Hoelzel, F. Dadson, A. S. See Peacock,

Dadson, A. S. See Peacock, M. A. Dadswell, H. E., and Ellis, D. J., cell wall. II. Investigation of delignification using thin cross-sections of various timbers, III, 62.

Daels, J., effect of adrenaline on isolated uterus of pregnant and non-pregnant women, III, 185.

Daft, F. S. See Lillie, R. D.

Dahlberg, A. C., and Penczek, E. S., relative sweetness of sugars as affected by concentration, III, 740.

Dahr, P., blood groups in Anthropoids, III,

Dain, B., and Liberzon, E., photochemical reaction in region of electron affinity spectrum of chromous ions in solution, I, 173.

Dainton, F. S., and Norrish, R. G. W., sensitised explosions. V. Hydrogenoxygen reaction sensitised by nitrogen VI. Hydrogen-oxygen reperoxide. action sensitised by nitrosyl chloride. VII. A chain-thermal theory of reaction between hydrogen and oxygen sensitised by nitrogen peroxide or nitrosyl chloride, I, 302.

Daji, J. A. See Leley, V. K.

Dakin, H. D., formation of betaine from hydroxyamino-acids on methylation, II,

Dakshinamurti, C. See Dasannaeharya, B. Daland, G. A. See Strauss, M. B.

Dalby, G. See Hoffman, C. Dale, H. E., sex hormone therapy, III, 99. Dale, W. M., effect of X-rays on enzymes, III, 134.

Dalma, G. See Ruzieka, L.

Daló, H. R., thiæmia [sulphur in blood], III, 838.

Dalphin, C. Sec Haag, E.

Dalton, A. J., and Hanzal, R. F., earbohydrate metabolism of chick embryo, IĬI, 721.

Dalton, J. E. See Schwartz, Louis. Daly, C. See Himwich, H. E.

Daly, I. de B., Foggie,  $\hat{P}$ ., and Hebb, C. O. experimental analysis of action of adrenaline and histamine on different parts of pulmonary vascular bed, III,

Daly,  $J_{\cdot,\cdot}$  diets in dyspensia, III, 271.

Damboviceanu, A., and Barber, C., chemical properties of complete antigen extract from cholera vibrio, III, 934.

Dameshek, W., "target cell" anæmia;

an erythroblastic type of Cooley's erythroblastic anæmia, III, 70. and Singer, K., familial non-hamolytic

jaundice, III, 490.

See also Singer, K. Damiens, A. See Jorissen, W. P. Dammin, G. J. See Janeway, C. A.

Damodaran,  $M_{\cdot}$ , and Narayanan,  $K_{\cdot}$   $G_{\cdot}$   $A_{\cdot}$ , arginase and canavanase, III, 136. and Ramachandran, B. V., enzymic

proteolysis. IV. Amino-acids of caseinogen phosphopeptone, II, 115. D'Amour, F. E., and Funk, D., spontaneous

intersexuality in rat, III, 670. and Smith, D. L., determining loss of pain sensation, III, 670.

See also Gustavson, R. G.

Dančević, L. See Iveković, H. Dandy, W. E., papillædema without raised

intracranial pressure (optic neuritis), III,

Danford, V. See Niemann, C.

Danforth, C. H., genie and hormonal factors in biological processes, III, 639.

Danforth, D. N., Graham, R. J., and Ivy,

A. C., physiology of uterus in labour, III, 874.

Danforth, W. C., histogenesis of ovarian

Brenner tumours, III, 874.

Dangerfield, L. F. Sec Fox, F. W.

Dangjan, M. T., reaction of iodine and iron with methyl alcohol and with ethyl acetate and benzoate, II, 277. Reaction of halogens and iron with alcohols and esters. IV. Reaction of iron bromine with ethyl alcohol, II, 346.

Danielli, J. F., cell permeability and diffusion across the oil-water interface, I, 207.  $p_{\rm H}$  at surface of ovalbumin molecules, and protein error with indicators, III, 621. Permeability change of stimulated nerve, III, 852.

Danielopolu, D., and Marcou, I., physiological rôle of acetylcholine, adrenaline, and sympathin; regulation of function of terminal organ, III, 179.

Daniels, A. L., destruction of thiamin in evaporated milk, III, 892.

Daniels, B. T. See Lingenfelter, G. P. Daniels, F. See Brown, R. F., Magee, J. L., and Roof, J. G.

Daniels, T. C., and Iwamoto, H.,  $N^1N^4$ pyrazinoyl derivatives of sulphanilamide, II, 109.

See also Goyan, F. M. Daniels, W. B., Leonard, B. W., and Holtzman, S., renal insufficiency following transfusion, III, 642.

Danilov, S. N., Matveev, V. M., and Buchgalter, V. I., theory of nitration of cellulose, I, 44.

Danis, P. G., and Rossen, J. A., renal rickets, III, 448.

Danley, R. C. See Kerr, W. H. Dann, W. J., and Handler, P., determination of nicotinic acid in animal tissues, III, 777. Synthesis of nicotinic acid by chick embryo, III, 1036.

and Kohn, H. I., factor V (co-enzymes I and II) content of rat tissues: evidence for synthesis of nicotinic acid by

the rat, III, 117.

Kohn, H. I., and Handler, P., effect of pyrazine acids and quinolinic acid on V-factor content of human blood and on canine blacktongue, III, 777.

and Yarbrough, M. E., dark adaptometer readings of subjects on diet deficient in vitamin-A, III, 569.

See also Caveness, H. L., and Richmond, M. S.

Danowski, T. S., transfer of potassium across human blood cell membrane, III,

Danysz, S. See Lacassagne, A.

Darbinian, M. V., detection of nitrates and nitrites by means of amidol (2:4-diaminophenol hydrochloride), I, 386.

Darby, H. H., ultra-violet absorption

spectrum of papain, III, 796. See also Duff, P. A.

Darby, W.J. See Day, P.L.

Darken, L. S., ionisation constants of oxalic acid at 25° from conductance measurements, I, 264.

Darling, R. C., arterial oxygen saturation in cirrhosis of liver, III, 446.

Darlington, C. D., and Upcott, M. spontaneous chromosome change, III, 157.

Darlow, A. E. See Bell, T. D. Darrah, W. C., American coal balls, I, 136. Darricarrere, T. See Arena, A. R. Darrow, C. W., convenient electro-

encephalographic electrode, 111, 567. See also Carlson, H. B.

Darrow, D. C., and Yannet, H., metabolic studies of the changes in body-electrolyte and distribution of bodywater induced experimentally by deficit of extracellular electrolyte, III, 901. See also Miller, H. C.

Darrow, K. K., helium the superfluid, I,

Darrow, R. R., and Nowakovsky, S., specificity of feetal and adult human hæmoglobin precipitins, III, 163.

Darwin, C. G., thermodynamics and lowest

temperatures, I, 49. Das, A. K., motion of gases in the sun's

atmosphere. I. Mechanism of formation of solar dark markings, I, 236. and Salaruddin, M., measurement of

cosmic rays at Agra and Kodaikanal,

Das, S. C., rates of action and clearance of barbiturates, III, 40. Antagonism of evipan by picrotoxin, coramine, and cardiazol, III, 40.

and Raventós, J., clearance of sodium

evipan, III, 39.

Dasannacharya, B., and Daksbinamurti, C.,

are discharge in mercury, I, 286.

Das-Gupta, D., and Ghosh, T. N., quinoline derivatives. VI., II, 337.

Das-Gupta, S. J., determination of mercury and copper, I, 306. Acridine derivatives. VI., VII. Compounds with mercury, copper, and antimony, II,

304, 333.

See also Basu, U. P.

Das Gupta, S. N., Verma, G. S., and Sinha,
S., diseases of Mangifera indica, Linn. III. Effect of sulphur dioxide gas on mango fruit, III, 482. Da Silveira, X. M. See Welti, II.

Dastugne, G., sensitisation to action of acetylcholine produced by hydroxydihydrocodeinone, III, 612.

and Gandour, M., parallel sensitising effect of hydroxydihydrocodeinone and of eserine on reaction of leech muscle to acetylcholine, III, 612.

See also Dodel, P.

Dastur, P. S., triceps brachii in dog, monkey, and man, III, 822.

Datar, D. S., and Qureshi, M., chromium hydroxide sols, I, 111. Isomeric transformation of chromium chloride in the dark and in ultra-violet light, I, 172.

Dauben, W. G., Evans, W. L., and Meltzer, R. L., preparation of glycerophenylose enediol diacetate, II, 288.

See also Linstead, R. P.

Daubenmire, J. B., qualitative and quanti-tative study of atmospheric pollen at Moscow, Idaho, III, 233.

Daudt, W. H. See Fieser, L. F.
Davenport, C. H. See Seyer, W. F.
Davenport, H. W., inhibition of carbonic anhydrase and of gastric acid secretion by thiocyanate, III, 13.

and Fisher, R. B., secretion of acid by gastric mucosa, III, 1013.

Davey, E. L. See Fraser, D. T. David, H. G., and Munson, R. J., mobility of alkali ions in gases. IV. Measurements in gaseous mixtures, I, 141.

David, N. A., Phatak, N. M., Donnell,  $H_{\cdot}$ , and Vehrs, H., intravenous toxicity of heparin-sodium sulphapyridine and protective action of barbiturates, III, 694.

See also Phatak, N. M.

David, T. T., and Solis, J. A., congenital external and internal anomalies in foal, III, 719.

David, W. T., temperature and latent energy in flame gases, I, 117, 339. Physics of flames and explosions in gases, I, 170.

Leah, A. S., and Pugh, B., latent energy and dissociation in flame gases, I, 117.

Davidoff, E. See Reifenstein, E. C., jun. Davidoff, L. M., hyperpituitarism and hypopituitarism, III, 96.

Davidov, B., contact resistance of semiconductors, I, 151.

and Pomerantschuk, I., influence of a magnetic field on electrical conductivity of bismuth single crystals at low temperatures, I, 197.

Davidov, G. K., action of ultrasonic waves on sugar beet seed, III, 541.

Davidova, M. I. See Sumarokov, V. P. Davidson, A. W., and Ramskill, E. A., binary system sodium formate-acetic acid; solutions of sodium acetate in formic acid, I, 336.

See also Burstein, E.

Davidson, D. T. See Chapple, C. C.

Davidson, H. R., geometrical crystallography of PbO, and Pb,O,, I, 366.

Davidson, J. M., toxic effects of iroko, III, 466.

Davidson, J. N., effect of ultra-violet light on living yeast cells, III, 303. and Garry, R. C., absorption of pentoses

from small intestine of urethanised rat, III, 271.

Davidson, L. S. P., biopsy of sternal marrow, III, 958. Nutritional deficiencies in man, III, 1033.

See also Innes, J.

Davidson, M., evolution of lens lesions in eye perforations and ruptures, III, 503.

Davidson, N. R., Hngill, J. A. C., Skinner, H. A., and Sutton, L. E., electron diffraction investigation of molecular structure of aluminium trimethyl in the vapour phase, I, 31.

Davidson, W. L., jun. See Schultz, H. L. Davies, A. W., and Moore, T., interaction of vitamins-A and -E, III, 1033.

Davies, E., hereditary familial purpura simplex, III, 327.

Davies, H. A., Harris, L. C., and Schmeisser, H. C., toxic effects of sulphanilamide on tissues of rats, III, 37.

Davies, H. E. See Andrews, K. W. Davies, L. T. See Latta, J. S.

Davies, R., effect of carbon dioxide on growth of tubercle bacillus, III, 144.

Davies, R. O., determination of carotene, 111, 283.

Davies, W. C., polarography, I, 218.

Davies, W. W., Krahl, M. E., and Clowes, G. H. A., interactions between polycyclic hydrocarbons and sterols in mixed surface films at the air-water surface,

Davis, A., and Wingfield, A., agranulocytosis in kala-azar and use of adrenaline,

111, 966.

Davis, B. See Heidelberger, M. Davis, B. D. See Cohn, E. J.

Davis, B. L., and Phillips, Max, hemicelluloses of sugar cane fibre (bagasse), III, 1085.

Davis, D. H. S. See Brambell, F. W. R. Davis, D. M., shortcomings of intravenous

urography, III, 769.

Davis, D. S., nomograph for surface tension of ethyl alcohol-water mixtures [from 15° to 90°], I, 80. Line co-ordinate chart for vapour pressures of organic solvents, I, 199. Nomographs for thermal conductivities of gases and vapours, I, 295. Nomograph for solubility of sulphur dioxide in water, I, 372. Nomograph for solubility of chlorine in water, I, 462.

Davis, E., and Hinden, E., pellagra following chronic alcoholism, III, 374.

Davis, F. A. See Longley, B. J. Davis, F. J., dispersion of magnetic double refraction in short infra-red spectrum, I, 99.

Davis, G. E. See Topping, N. H.

Davis, H. A., pathology of shock in man, III, 82. Pathology of dehydration shock, Ill, 964.

Davis, J. E., mechanism of the depressant action of liver and choline hydrochloride on experimental polycythæmia; effect of sodium nitrite and choline derivatives on polycythæmic dogs. Ill, 217. Blood volume in cobalt polycythæmia, III.

See also Hammond, G.

Davis, J. H., Murphy, K. M., and Emge, L. A., effect of dibenzanthracene on transplantable mammary adenofibroma of the white rat, III, 277.

See also Bayer, L. M.

Davis, J. K. See Mack, G. L.

Davis, J. W. See Adkins, H., and Emerson. W. S.

Davis, L., and Barker, M. H., depressor effect of potassium thiocyanate before and after bilateral splanchnicotomy in normal and hypertensive dogs, III, 294.

See also Martin, J.

Davis, M. E. See Huber, C. P.
Davis, M. W., Bradley, W. B., Bachrach,
W. H., and Ivy, A. C., effect of Rammstedt operation on incidence of cinchophen ulcer, III, 582.

Davis, O. L. See Lingane, J. J.

Davis, P. A., technique and evaluation of electroencephalogram, III, 742.

Davis, R. E., and Madsen, L. L., carotene and vitamin-A in cattle blood-plasma; reproductive performance at restricted levels of carotene intake, III, 517.

Davis, T. K., erymotherapy; neurological observations, III, 531.

Davis, T. L., and Green, W. P., jun., reaction of copper with benzaldehyde, II,

Davis, T. W. See Burton, M.
Davison, C., liver therapy in subacute combined degeneration of spinal cord, 111, 665.

Davson,  $H_{\cdot,\cdot}$  and Weld, C. B., aqueous humour, III, 998.

Davson, J., malignant hypertension with hydatid disease of the kidney, III,

Davy, E. D. See London, M.

ground response in Amphibia, III, 746, 885. Dawes, B., pigmentary changes and back-

Dawes, G. S., vasodilator action of potassium, III, 250.

Dawson, A. B., development and morphology of corpus luteum of cat, III, 411. Early cestrus in cat following increased illumination, III, 675.

Dawson, H. See Hench, P. S. Dawson, J. R., Cressman, R. D., and Blalock, A., experimental hypertension and pregnancy in dogs, III, 337.

Dawson, J. R., jun., chick-embryo-adapted rabies virus, III, 631.

Dawson, R. F., nitrogen nutrition and nicotine synthesis in tobacco, III, 148. Metabolism of nicotine hydrochloride in excised tobacco shoots, III, 148.

Dawton, R. H. V. M. See Robertson, J. M. Dax, E. C., case of gyrate atrophy of choroid and retina with hypogenitalism, III, 259. Retinitis pigmentosa, III, 346. Convulsion therapy by ammonium chloride, III, 665.

Day, A. A., experimental tuberculosis in animals, III, 805.

See also Werch, S. C. Day, A. R. See Allewelt, A. L., Kreps, S. I., and Roeder, C. H.

Day, C. D. M., and Tandan, G. C., incidence of dental caries in Punjab, III, 203. See also Taylor, G. F.

Day, F. T., and Rowlands, I. W., time and rate of appearance of gonadotropin in serum of pregnant mares, III, 268.

Day, H. G. [with Eckenrode, B.], relation of phytin to calcifying action of citrates, III, 22.

Day, H. G., and Follis, R. H., jun., skeletal changes in rats receiving cestradiol benzoate, III, 357.

and McCollum, E. V., acute dietary zinc deficiency in rat, III, 593.

See also Follis, R. H., jun., and Shils, M. E.

Day, P. L., Langston, W. C., Darby, W. J., Wahlin, J. G., and Mims, V., nutritional cytopenia in monkeys receiving Goldberger diet, III, 896.

Day, R. A., jun., and Pease, R. N., kinetics of oxidation of hydrocarbons, I, 270.

Dayman, H. See Thorn, G. W. Deakin, R., Wortman, M., and La Force, R., sulphonamide therapy of male gonorrhœa, III, 905.

Deal, E. C., silver nitrate and thiocyanate

standard solutions, I, 482.

De Allende, I. L. C., progesterone in blood during sexual cycle of Macacus rhesus, III, 672. Progesterone in blood of female macaques injected with progesterone, III, 762. De Almeida, M. O., Moussatché, H., and

Vianna Dias, M., jumping reflex in frog, III, 429.

Dean, D. M., Thomas, A. R., and Allison, R. S., high-explosive blast and lungs, III, 84.

Dean, E. W. See Ruh, E. L. Dean, H. T., fluorine, mottled enamel, and dental caries, III, 18.

Jay, P., Arnold, F. A., and Elvove, E., domestic water and dental caries [rôle of fluoride], III, 775.

Dean, J. L. See Atkinson, W. J.

Dean, R. B., anaërobic uptake of potassium by frog muscle, III, 340. Determination of chloride in single isolated muscle fibres, III, 426.

and Fishman, M. M., determination of chloride and base in same tissue

sample, III, 1087.

Noonan, T. R., Haege, L. F., and Fenn, W. O., permeability of crythrocytes to radioactive potassium, III, 322.

Dean, S. J. See Millar, J. W.

Deardorff, D. L. See Eversole, W. G. Deatherage, F. E., McConnell, K. P., and Mattill, H. A., effect of pro-oxidants on reproduction in rats, III, 675.

Deb, S. B., and Roberts, E. A. H., respiration and anaërobic fermentation of tea leaf and their relationship to tea fermentation, III, 135.

De Barenne, J. G. D. See Murphy, J. P. De Beer, E.J., Drektar, L., and Flusser, B., routes of administration of materials acting as vitamin-K, III, 1038.

and Tullar, P. E., biological estimation of ergometrine, III, 529.

See also Hjort, A. M.

De Benedetti, S., simultaneous emission of particles and pair production, I,

De Benneville, P. L., synthesis of ketoacids and ketones by reaction of acid anhydrides with cadmium alkyls, II, 245.

and Connor, R., hydrogenation of substituted coumarins, II, 266.

Debler, K., familial hæmolytic anæmia, III, 416.

Deboben, W., reticulocytes in secondary intestinal tuberculosis, III, 828.

De Boer, B., effects of X-rays on regener-

ation of feathers in fowl, III, 67.

De Bois, D. See Stern, K. G.

Deborin, G., and Erschler, B., polarisation capacity of a smooth gold electrode, I.

Debré, R., and Nevot, A., actiology of infantile acrodynia, III, 174.

De Bruyne, N. A., viscous and plastic flow, I, 201.

Debye, P., influence of intramolecular atomic motion on electron diffraction diagrams, I, 105.

Dee, J. See Marvel, C. S.

De Cairo, Z. G. Sec Morenzi, A. D. Decaneas, D., and Uiberrak, K., varying insulin sensitivity in diabetics, III, 868.

Caro, L., and Fornaroli, P., colloidal behaviour of cocarboxylase, III, 47.

Fornaroli, P., and Boni, I., contents of lactic and pyruvic acid in blood and tissues of normal and B<sub>1</sub>-avitaminotic rats injected with pyruvate and lactate, III, 24.

De Chazournes, L. B. See Savy, P. Dechtjar, M., magnetic texture and

magneti-elastic hysteresis, I, 157. Decker, H. B. See Corson, E. F.

Decker, P., dehydration treatment in diffuse cerebral conditions of traumatic origin, III, 344.

Decs, S. C., Weltmann serum coagulation reaction in allergic disease, III, 831.

Dederer, P. H., production of giant spermatocytes by X-radiation, III, 67.

Dedes, D. See Cokkalis, P.

De Diesbach, H. [with Lachat, P., Poggi, M., Baldi, B., Friderich, R., and Walker, H.], \omega-amino-derivatives of [quinones and] ketones, II, 47.

and Klement, O., benzoyl derivatives of indigotin. VI., II, 232.

DeEds, F., oxidation of phenthiazine, II,

154.

Wilson, R. H., and Thomas, J. O., photosensitisation by phenthiazine, III, 42.

See also Wilson, R. H.

Deeny, J., polycythæmia and vitamin-C, III, 323.

Dees, S. C., experimental study of Weltmann serum coagulation reaction, III, 6.

Deevey, E. S., jun., encystment of the harpacticoid copepod, Canthocamptus staphylinoides, Pearse, III, 886.

Deevey, G. B., blood cells of tarantula and their relation to moulting cycle, III, 642.

De Falco, R. J., comparison of antigens by interfacial and nephelometric methods, III, 810.

De Gara, P. F. See Bullowa, J. G. M. De Gennes, L., and Salles, P., effect of testosterone in regressive infantilism, III,

Degering, E. F. See Feasley, C. F. Degnan, W. M. See Roemer, J. J.

DeGowin, E. L., and Hardin, R. C., reactions with stored blood, III, 162.

DeGraff, A. C., and Lehman, R. A., lethal effect of sublethal doses of lanatoside C, digoxin, and digoxigenin in the cat, III, 695.

Paff, G. H., and Lehman, R. A., quantitative effect of fifteen chemically related glycosides and genins on embryonic chick heart, III, 786. See also Batterman, R. C.

De Gray, R. J., and De Moise, A. W., segregation of high- and low-titre fatty acids, II, 116.

Haas, J. H., Posthuma, J. H., and Meulemans, O., xerophthalmia in Meulemans, children in Batavia, III, 23.

De Haas, J. H., Posthuma, J. H., Ruzette, E. M., and Meulemans, O., feeding of infants and children in the tropics. I .. III, 592.

De Haas, W. J., and Wiersma, E. C., adiabatic demagnetisation of para-

magnetic salts, I, 404.

Dehlinger, U., and Kochendörfer,  $\Lambda$ ., line broadening of deformed metals, I, 152. Dehn, W. M., additive compounds formed in the desulphurisation of thiocarbamides

by copper hydroxide, II, 214. See also Quense, J. A., and Sieg, R. P.

De Hoff, J. See Coe, M.

Deichmann, W., toxicity of methyl, ethyl, and n-butyl methacrylate, III, 1057.

and Kitzmiller, K.L., toxicity of vanillin and ethylvanillin for rabbits and rats, III, 131. Toxic effects on rats and rabbits of N-benzyl-N-amylcyclohexylamine, III, 297.

Kitzmiller, L. K., and Spiegel, F., toxic effects upon rabbits and rats lauryldiethylenetriamine, III, 297.

Deilmann, K. O. See Fischer, Hans. De Jong, H. G. B. See Bank, O. De Jong, H. W. See Hearne, G.

De Jong, W. F., and Bouman, J., crystallographic calculations and constructions with the reciprocal lattice, I, 153.

De Kruif, P., and Simpson, W. M., significance of inhibitory effect of fever on anaphylactic phenomena, III, 232.

De Lachaud, R. See Lacoste, A.

Delachaux, A., Cushing's syndrome, III, 96.
Delafield, M. E., Straker, E., and Topley,
W. W. C., antiseptic snuffs, III, 612.

See also Cameron, G. R.

Delahant, A. B. See Gardner, L. U. DeLamater, E. D., experimental studies with dermatophytes; development and duration of immunity and hyper-sensitivity in guinea-pigs, III, 811.

De Lange, C., malignant form of Gaucher's

disease, III, 73. Congenital disturbance of central nervous system, III, 88. Familial infantile form of diffuse sclerosis of brain, III, 88. Lissencephalia [agyria] in man, III, 992.

De Langhe, J. See Deulofeu, V.

De la Rivière, R. D., and Kossovitch, N., sub-groups of agglutinogen B, III, 161. Delaunay, A. Sec Boivin, A.

Delaunois, A. L. See Heymans, C.

De Lay, P. D., grasshopper-poison bait and turkey-poult mortality, III, 42.

Del Castillo, E. B., and Di Paola, G., vaginal response to æstradiol and progesterone, III, 761.

De Lee, J. B., posterior pituitary solution in labour, III, 267.

Delektorskaja, N. M. See Rushentzeva, A. K.

Delfs, E., assay method for human chorionic gonadotropin, III, 359. See also Seegar, G. E.

Delfs, G., helium-oxygen inhalation, III, 563. Delimarski, J. K., and Berenblum, L. S., equilibrium between metallic aluminium and zinc chloride in melts, I, 377.

and Miroschnitschenko, K. S., equilibrium  $Cd + SnBr_2 \rightleftharpoons Sn + CdBr_2$  in AlBr<sub>3</sub>-KBr as solvent, I, 212.

Deliwala, C. V., and Shah, N. M., aluminium chloride, a new reagent for the condensation of  $\beta$ -ketonic esters with phenols. V. Condensation of substituted resacetophenones with ethyl acetoacetate, II, 332.

Delong, R. C. See Hyde, J. F. De Lor, C. J., Means, J. W., Shinowara, G. Y., and Reinhart, H. L., functional and biopsy studies on human liver following administration of unconjugated ketocholanio acids, III, 1019.

and Reinhart, H. L., analysis of hippuric acid, galactose-tolerance, bromsulphaloin, and prothrombin tests [of liver function] in 381 cases, III, 201.

De Lorenzo, F. C., diagnosing idiopathic epilepsy, III, 89.

See also De Sanctis, A. G.

Delory, G. E. See King, E. J.

Delp, M., case of hypercholesterolæmia with skin lesions; [action of thyroid], III, 494.

Delsasso, L. A., and Creutz, E. C., vacuum lock, I, 486.

White, M. G., Barkas, W. H., and Creutz, E. C., carbon isotopes of mass 10 and 11, I, 2. See also White, M. G.

Demarest, B., photo-electric vitamin-A photometer, III, 684.

De Meio, R. H., and Ludueña, F. P.,

action of adrenaline on respiration and its destruction by retractor penis in vitro, III, 263.

Demelenne-Jaminon, G., case of microbe variation, III, 927.

De Ment, J., filament-bearing balance, I, 131.

Dementii, N. T. See Genes, S. G.

Dementii, V. S., and Timoschtschuk, D. V., absorption of fast neutrons, I, 286.

Demerec, M., and Fano, U., mechanism of origin of X-ray induced notch deficiencies in *Drosophila*, III, 319.

Demers, P. See Lortie, L.

De Meuron, cclampsia and amaurosis of central origin, III, 347. Demidenko, S. G., isotopic composition of

atmospheric precipitations, I, 392.

Demidov, K. K. See Berlaga, R. J.

Deming, L. S. See Wulf, O. R.

Demme, H., pathogenesis of Wassermann reaction in cerebrospinal fluid, III,

De Moise, A. W. Sce De Gray, R. J. Demole, M., lack of vitamin-C in the army,

III, 778.

Demolle, V., and Knapp, P., ocular lesions in vitamin-E-deficient rats, III,

De Montmollin, R. See Morel, F. De Morsier, G., and Bogaert, L. van, anatomical and clinical study of a striatocerebellar syndrome with bradykinesia and cholesterol deposits in spleen and choroid plexus, III, 986.

Dempsey, E. W., structure of reproductive tract in female gibbon, III, 99.

Morison, R. S., and Morison, B. R., afferent diencephalic pathways related to cortical potentials in the cat, III, 662.

See also Morison, R. S.

Denenholz, E. J. See Calvin, J. K., and Rambar, A. C.

Denhoff, E., prevention of measles in boys' camp by immune globulin (measles antibody), III, 55.

Deniges, G., microchemistry of the azide ion, I, 426. Distinction and identification of n- and iso-propyl alcohol with mercuric sulphate, II, 386.

Denisov, E. N., determination of manganese by silver-persulphate method, I,

Denisov, N. J., genesis of setting loess-like loams, I, 184.

Denker, P. G., and Scheinman, L., vitamin-E in amyotrophic lateral sclerosis, III,

Dennis, C. See McQuarrie, I.

Dennison, D. M., infra-red spectra of polyatomic molecules. II., I, 363.

Denny-Brown, D., delayed collapse after

head injury, III, 431. and Russell, W. R., experimental cerebral concussion, III, 178. Traumatic shock in experimental cerebral concussion, III, 743. Experimental concussion, III, 992.

Denstad, T., polyostotic fibrous dysplasia, III, 65.

Denstedt, O. F., Osborne, D. E., Roche, M. N., and Stansfield, H., preservation

of blood, III, 553.

Dent, R. V., photographic aspect of light reflexion from human skin, III,

Denton, J. J. See Fuson, R. C. Denues, A. R. T., and Huff, W. J., combustion of methane: displacement of mixtures giving maximum flame velocities, I, 270.

Deobald, H. J. See Christiansen, J. B. De Potter, F., antigenic properties of typhoid lysates prepared with essential oil solutions, III, 933.

De Rassenfosse, A. See Brasseur, H. Deren, M. See Ecker, A. D.

Derendjaev, S. See Essin, O.
Deribéré, M., luminescent minerals:
fluorite; fluorescence in the sodalite group and related groups; natural zinc compounds, I, 435.

Derjaguin, B., theory of non-dissolving volume (negative adsorption), I, 10, 38. Theory of capillary condensation and other capillary phenomena taking into consideration disjointing effect of multimolecular liquid films, I, 410.

De Robertis, E., cytology of parathyroid gland of rats injected with parathyroid extract, III, 321. Cytology of parathyroid and thyroid glands of rats with experimental rickets, III, 489. Intracellular colloid of normal and activated thyroid gland of rat studied by freezingdrying method, III, 641.

Derow, H. A., inexpensive polarising device

for microscopes, I, 178. and Altschule, M. D., malignant hypertension, III, 979.

Dervillée, P. See Lande, P.
Derviz, G. V., biochemical changes in sendity, III, 17.

De Sa, H. D., intricacies of ectopic preg-nancy, III, 875.

Desai, B. M. See Barve, P. M., and

 $\nabla$ ora,  $V.\overline{C}$ .

Desai, R. D., and Hamid, A., naphthalene series. VIII. Preparation and properties of 2:4-dipropionyl- and 4-acetyl-2-propionyl-1-naphthol. IX. Properties of 4-propionyl-1-naphthol and preparation of 4-propyl-1-naphthol, II, 170.

Hamid, A., and Shroff, H.P., naphthalene series. VI. Synthesis of 2-propyl-1naphthol and properties of 2-propionyl-

1-naphthol, II, 196. and Sahariya, G. S., derivatives of cyclohexane; synthesis of 1-carboxycyclohexane-1-succinic, -1-a-propionic, and -1-a-benzylacetic acids, and of a-cyclohexylsuccinic acids, II, 100.

Desai, R. D., and Vakil, (Miss) V. M., Friedel-Crafts reaction. VI. Further evidence for  $\gamma$ -substitution in resorcinol and orcinol derivatives, II, 104. Heterocyclic compounds. XI. Application of Pechman and Kostanecki

reactions to y-orcacetophenone, II, 107. and Waravdekar, W. S., naphthalene series. V. Properties of 2-stearyl-, -palmityl-, and -lauryl-1-naphthols and synthesis of 2-octadecyl-, -hexadeeyl-, and -dodecyl-1-naphthols. VII. Attempted synthesis of 4-stearyl-, 4-palmityl-, and 4-lauryl-1-naphthol, II, 196, 365. Heterocyclic compounds. XII. Chromones from resacyl- and gallacyl-phenones containing longchain acyl groups and chemical properties of these hydroxyketones, II, 266.

See also Alt, S. A.

De Sanctis, A. G., and De Lorenzo, F. C., exfoliative dermatitis (Ritter's disease) treated with sulphathiazole, III, 907.

Desclin, L., pentose-nucleie substances in cells of anterior pituitary, III, 1006.

and Dessiennes, R., antagonism between progesterone and estradiol in albino female mice, III, 440.

De Shazo, F. See Bohls, S. W. Deshmukh, G. S. See Joshi, S. S. Deshpande, J. S. See Hirwe, N. W. Deshpande, P. Y. See Paranjpe, G. R. Desjardins, A. U., radiotherapy for inflam-

matory conditions, III, 385.

Des Ligneris, M. J. A., production of benign and malignant skin tumours in mice painted with Bantu liver extracts, III, 112. Precancer and carcinogenesis, III, 204.

De Smedt, E. See Bogaert, L. van. De Soldati, L., pulse, arterial pressure, and electrocardiogram in avitaminosis-B. III, 284.

De Sousa, A. See Duboux, M. De Souza Santos, M. D. See under Santos,

M. D. de S.

Desreux, V. See Herriott, R. M. Dessauer, G., and Hafner, E. M., protoninduced fission, I, 314.

Dessiennes, R. See Desclin, L. De Sütö-Nagy, G. See Johnson, T. B.

De Takats, G., and Helfrich, L. S., sterility in male after sympathectomy, III, 997.

See also Scupham, G. W.

DeTurk, E. E. See Olson, L. C. Detweiler, H. K., MacKay, A., and Willinsky, A. I., sulphathiazole anuria with recovery, III, 1047.

Detwiler, S. R., eye of owl monkey (Nyctipithecus), III, 862.

See also Copenhaver, W. M.

Deuel, H. J., jun., and Hallman, L. F., absorption of synthetic triglycerides in the rat, III, 31. Ketosis. XIX. Endogenous ketonuria in rats, III, 900.

Hallman, L. F., and Leonard, A., absorption of natural fats, III, 31.

Hallman, L. F., and Reifman, A., absorption of fatty acids by rats, III,

See also Halliday, N., Harper, H. A., and Morehouse, M. G.

Deulofeu, V., chemistry of toad poison,

III, 681. De Langhe, J., Labriola, R., and Cárcamo, V., isolation of aspidospermine from Vallesia glabra and V. dichotoma, III, 945.

Deutsch, M., and Roberts, A., energies of γ-rays from <sup>83</sup>Br, <sup>131</sup>I, <sup>130</sup>I, <sup>56</sup>Mn, <sup>54</sup>Mn, <sup>74</sup>As, I, 441.

De Vault, D., and Libby, W. F., decay of \*\*\* 80Br (4.5 hr.), I, 24.

De Vayasquez, S., excretion of hæmoglobin with special reference to "transfusion" kidney, III, 109.

De Villiers, J. E., optical properties and crystallography of zoned pumpellyite from the Witwatersrand, I, 490.

Devine, J., value of pre-operative estimations of serum-protein in gastrie surgery, III, 76. Bence-Jones protein, III, 449. De Vita, J. See Gardner, W. U.

Devlin, H. B. See Orten, J. M.

De Vries, T., and Collins, B. T., heat capacity of organic vapours. I. Methyl alcohol, I, 329.

and Ivett, R. W., polarographic study of aliphatic nitro-compounds, II, 209.

De Waal, H. L., South African Senecio alkaloids, II, 110.

De Waele, H., and Van de Velde, J., sensitivity of auricular receptors of hypertensive reflex, III, 336.

Dewar, M. J. S., and King, F. E., constitution of yohimbine, II, 341. Dewey, D. W. See Marston, H. R.

Dewing, T., and Smith, Sydney, sulphanilyl-

guanidine, II, 319.

De Witt, J. B. See Loy, H. W., jun.

Dexter, M. I. See Niederl, J. B.

Dey, F. L., changes in ovaries and uteri in guinea-pigs with hypothalamic lesions. III, 988.

See also Brookhart, J. M., and Wang, S. C.

Dhanoedibroto, R. S. See Veen, A. G. van. Dhar, M. L., Hughes, E. D., Ingold, C. K., Mandour, A. M. M., Webb, F. R., and Woolf, L. I., elimination reactions in organic chemistry; mechanism, II, 309.

Dhar, N. R., Bhattacharya, A. K., and Agarwal, S. P., chemical reactivity and light absorption. IV., I, 382.

Dharmatti, S. S., magnetism and molecular structure of sulphur compounds, I, 401.

Dharwarkar, H. V., and Alimchandani, R. L., reactivity of CHCl-CCl<sub>3</sub> group attached to an aromatic nucleus, II, 43. Reduction products of chloral-hydroxybenzoic acids, II, 99.

Diaduscha, G. F., mechanism of humoral action of spleen on malignant tumours, III, 206.

Dial, W. A., diagnosis and treatment of sterility, III, 875.

Diamond, J. S., and Siegel, S. A., secretin test in diagnosis of pancreatic diseases, III, 200. Clinical use of secretin in study of pancreatic function, III,

Siegel, S. A., and Myerson, S., secretin test as aid in differential diagnosis of steatorrhœas, III, 1015.

Diamond, L. K. See Shohl, A. T.

Diasio, J. S., rectal digitalis in congestive heart failure, III, 528.

Diatkina, M. E., ionic character and dipole moments of bonds, I, 243.

See also Sirkin, J. K.

Diaz. J. T., effect of subtotal nephrectomy on œstrous cycle of rat, III, 585.

Diaz, L. M. See Fels, E. Dibble, B. See Strong, J.

Di Benedetto, E. J., effect of pilocarpine on blood-sugar of hypophysectomised dogs and on dogs treated with hypophysis anterior lobe extract, III, 188.

Dible, J. H., and Popjak, G., distribution of fatty change in kidneys and factors influencing its production, III, 884. and West, C. M., human ovum at previllous stage, III, 411.

See also Clegg, J. W.

Dibrova, A. T. See Plotnikov, V. A. Dice, M. E. Scc Toomey, J. A.

Dichek, M. See Sure, B.

Dick, G. F., barberry: ancient remedy; new germicide, III, 294. Bacteriologic examination of stomach contents in pernicious anæmia, III, 1014.

and Dick, G. H., oral toxin in searlet fever, III, 394.

See also Barron, E. S. G., and Childs, A. Dick, G. H. See Dick, G.F.

Dicken, D. M. See Landy, M. Dickens, F., and Weil-Malherbe, H., metabolism of normal and tumour tissue. XIX. Intestinal mucous membrane, III, 369.

Dickens, K. La V. See Pearson, B. Dickerson, G. E., estimates of producing

ability in dairy cattle, III, 450. Dickinson, E. M., and Seofield, effect of sulphur against artificial infection with Eimeria acervulina and E. tenella, III, 382.

Dickinson, S. See Astbury, W. T. Dickinson, W., effect of  $p_{\rm H}$  on electrophoretic mobility of emulsions of hydrocarbons and aliphatic halides, I, 209.

Dickison, H. L. See Butler, T. C. Dickson, G. R., and Konopinski, E. J., assignment and prediction of radioactive periods, I, 68.

Didier, M., and Lacoste, J., relation between colloidal character of marls and their behaviour in borings and in tectonics. I.

63. Dieck, C., eosinophilia in premature infants, III, 326.

Dieckerhoff, R. See Bennholdt-Thomsen,

Dieckmann, H., enzymological problems of cancer research. I. Protein metabolism, III, 280.

Dieffenbach, E. See Meltzer, H.

Diehl, E. A., geological-petrological study of Grand Combin zone of the Val d'Ollemont (Aosta Province, Italy), I,

Diehl, H. S., Baker, A. B., and Cowan, D. W., cold vaccines, III, 146. Dieke, G. H. See Ginsburg, N.

Diemair, W., and Mollenkopf, K., glycolysis in animal organisms with special regard to lactic acid formation in its dependence on glycogen content, III, 901.

Dienst, W., whooping-cough agglutinin formation, III, 474.

See also Bennholdt-Thomsen, C.

Dietel, F. W., and Kaiser, A. D., sulphathiazole in Staph. aureus meningitis, III,

Dietert, H. W., and Schuch, J., projection comparator-densitometer, I, 221.

Dietrich, H. G., and Bendor, P. J., tungsten-

nickel and tungsten-silver electrode systems in neutralisations, I, 178.

Dietrich, W., origin of anterior (left) coronary artery from pulmonary artery with unusual changes in myocardium and vessel walls, III, 952.

Dietz, J. H. See Donnell, C. K. Diggs, L. W., and Pettit, V. D, detection of sickle-cell trait, III, 6.

See also Hughes, J. G. Digilio, V. See Hyman, A. S.

Di Gioia, A. M., gonococcus complement fixation test, III, 229.

Dijkhuizen, R. K., and Behr, E., adrenal hypertrophy in infants, III, 185.

Dill, D. B., Wilson, J. W., Hall, F. G., and Robinson, S., blood of negroes and whites in relation to climate and season. III, 166.

See also Asmussen, E., Consolazio, W. V., and Forbes, W. H.

Dill, L. V., and Erickson, C. C., effect of constriction of renal arteries in pregnancy and certain endocrine states of rabbits, III, 337.

Dille, J. M. See Ahlquist, R. P., and Krems, A. D.

Dillenberg, S. M. See Neal, J. B.

Dillon, C., facilitation and summationtheir relation to local anæsthesia. III.

Dillon, E. S., mortality studies of diabetes, III, 756.

Dillon, J. B. See Hertzman Dillon, T. See Barry, V. C. See Hertzman, A. B.

Di Maria, G. See Cianci, V.
Di Maria, M. See Duffleld, T. J.
Dimick, K. P. See Christensen, B. E.

Dimick, M. K., and Lepp, A., relation of pantothenic acid to filtrate fraction of vitamin-B complex, III, 778.

Dimitrow, S., potassium-rich alkali rocks from Bulgaria; eruptive rocks from Svidnja (western Balkans), I, 92.

Dimler, R. J. See Moore, S. Dimond, A. E., and Duggar, B. M., effects of ultra-violet radiation on germination and morphology of spores of Rhizopus

suinus, III, 48. Dimtza, A., Raynaud's disease, III, 336. and Jaeger, W., indication for arterio-

graphy, III, 337.

Dingemanse, E., and Tislowitz, R., urinary elimination of estrogens injected in dogs, III, 440.

Dinger, A. See Ruggli, P. Dinger, J. E., existence of viruses, III, 710. Dingle, H., and Pryce, A. W., determination of small quantities of carbon dioxide in air by absorption of infra-red radiation, I, 57.

Dingle, J. H., and Seidman, L. R., specific polysaccharide as cutaneous test for evaluation of serum therapy in influenza bacillus meningitis, III, 802. Thomas, L., and Morton, A. R., sulphadi-

azine in meningococcal infections, III, 1045.

Dingle, J. R. See Coffin, C. C. Dingle, J. T., Kent, G. T., Williams, L. L., and Wiggers, C. J., alleged quantitative criteria of vasomotor action, III, 172.

Dinnean, F. L. See Stone, L. S. Dinolt, R., histology of human olfactory bulb, III, 86.

Diomidova, N., spermatogenesis in rats outside the body, III, 508

DiPalma, J.  $\tilde{R}.$ , Reynolds, S. R. M., and Foster, F. I., measurement of sensitivity of smaller blood vessels in human skin, III, 975.

Di Paola, G. See Del Castillo, E. B. Dippy, J. F. J., influence of solvent on

relative strengths of monocarboxylic acids, I, 414.

and Jenkins, H. O., temperature-dependence of ionisation constants of monocarboxylic acids, I, 376.

Dirickx, E. F. See Stiles, M. H. Dirksen, A. See Klatt, T. Dirr, C. T. See Asher, L.

Dirr. K., and Amann,  $\Lambda$ ., changes in purine metabolism after blocking reticuloendothelial system in dogs, III, 247.

and Klemm, E., extrahepatic formation of bilirubin in exudates and hæmorrhages, III, 166.

and  $\overline{\text{Sommer}}$ , E., disturbances of lipin metabolism in malignant tumours, III,

Dirscherl, W., colour reaction for detection of equal [7:4'-dihydroxyisoflavan] in mare's urine, II, 373.

and Nahm, H., acyloins. IX. Nonenzymic decarboxylation of pyruvic acid and acetoin formation, II, 349.

Dische, Z., phosphorylation of glucose in initial static phase of alcoholic fermentation in living yeast, III, 923. Disick, S. See Mulinos, M. G.

Di Somma, A. A. See Landsteimer,

Ditchburn, R. W., and Roulston, K. I., sputtering of platinum in hydrogen and deuterium, I, 476. and Steele, E. J. P., effect of caffeine and

bromide on dark adaptation, III,

Ditterbrandt, M. See Todd, W. R.

Dittmar, C., chemotherapy of tumour transplants, III, 20. Sensitivity of skin and connective tissue toward carcinogens in various strains of mice, III, 277.

Dixit, K. R., effect of admixture of silver on rectifying properties of Cu-Cu2O

cells, I, 400.

Dixon, H. H., and Barlee, J. S., transpiration [of plants] in a saturated atmosphere, III, 58.

Dixon, H. M. See McCutcheon, M., and

Rehbock, D. J.
Dixon, J. F., crymotherapy; pulmonary complications, III, 531.

Dixon, J. K. See Vance, J. E.
Dixon, K. C., mechanism of cerebral concussion, III, 178.

Djabri, A., effect of l-ascorbic acid on osteogenesis and mineralisation of bones of normal and scorbutic guinea-pigs, III,

Djakonov, I. A., introduction of an ethylenic linking into the trimethylene cycle. I. Attempted preparation of methylenecyclopropane by action of zinc dust on -chloro-β-chloromethylpropene in alcoholic solution. II. Action of phosphorus pentachloride in acetylcyclopropane, II, 37.

Djakova, M. K. Sec Bobischev, V. I. Djatlovitzkaja, B. I. See Morgulis, N. D. Djatschenko, M., and Selegenev, V., measurement of the excitation potentials of mercury atom by means of a photon counter, I, 139.

Djatschkovski, S. I., colloid-chemical hydrolysis of proteins. III., I, 45.

and Gurvitsch, A. J., colloid chemistry of high temperatures. III. Adsorptive capacity of thermally desolvated clays, I, 10.

and Rubtzova, V. K., hydrates of chromic oxide, I, 19.

Djin-Yüan, G., effect of carbohydrates on vitamin-C requirement, III, 521. Dmitriev, I. I. See Schujkin, N. I.

Dmitriev, V. A., distribution function for electrons in a metal in a strong magnetic field, I, 186.

Dmitruk, W. See Kaufman, P. Dneprov, G. F. See Shukov, I. I. Doak, B. See Flippin, H. F.

Doak, B. W., effect of various nitrogenous compounds on rooting of rhododendron cuttings treated with a-naphthylacetic acid, III, 60.

See also Melville, J.

Doak, G. O., Eagle, H., and Steinman, H. G., preparation of phenylarsenoxides. II. Derivatives of amino- and hydroxyphenylarsenoxides. III. Derivatives of carboxy- and sulpho-phenylarsenoxides. IV. Disubstituted compounds, II, 111,

Doan, C. A., reticulo-endothelial system, III, 165.

and Reinhart, H. L., basophil granulocyte, basophilocytosis, and myeloid leukæmia, basophil, and "mixed leukæmia, basophil, ar granule "types, III, 553.

See also Houghton, B. C.

Doane, J. C., Blumberg, N., and Teplick, G., Simmonds' cachexia, III, 96.

Dobbelstein, O., increased vitamin-C consumption in fever, III, 521.

Dobberstein, J., leukæmia in animals, III,

Dobbin, C. N., gross anatomy of air-bladders of ten families of fishes, III, 485. Dobbs, R. H., eumydrin in congenital pyloric stenosis, III, 679.

Dobes, W. L., and Keil, H., treatment of acne vulgaris by cryotherapy (slush method), III, 132.

Dobler, M. See Hegner, R.

Dobratz, C. J., heat capacities of organic vapours, I, 369.

Dobrinna, T. P. See Schujkin, N. I. Dobrotin, N. A. See Veksler, V. I. Dobrovolskaja, N. K. See Medox, G. V.

Dobrovolskaja-Zavadskaja, N., and Zéphiroff, P., growth of tumours in mice treated with adrenal cortical extracts, III, 206. Quantitative study of growth of tumours under influence of hepatic and adreno-cortical extracts in mouse, III, 281. Effect of treatment with water-soluble cortin and cysteine of mouse with mammary adenocarcinoma, III, 888.

See also Zéphiroff, P.

Dobson, L., Holman, E., and Cutting, W., sulphanilamide in actinomycosis, III,

Dobson, M., convergence, III, 257.

Dobuitschin, D. P., and Frost, A. V., hydrogenation by means of hydrogen dissolved in palladium, I, 52.

**Dobzhansky**,  $\hat{T}$ ., discovery of a predicted gene arrangement in Drosophila azteca, ĬII, 320.

Dock, W., vasoconstriction in renal hypertension abolished by pithing, III, 173.

Dockeray, G. C., and Sachs, H., autohæmagglutination and anti-O agglutinins, III, 325.

and Kawerau, E., heparin and sulphapyridine in subacute bacterial endocarditis, III, 461.

Dockerty, M. B., solid ovarian tumours, 111, 441.

Dodd, K. See Minot, A. S. Dodds, E. C., new æstrogens, III, 192. See also Beaumont, G. E.

Dodds, G. See Barclay, I. M. Dodds, W. J., and Stranathan, J. D., electrets made from dry-mixed components, I, 448.

Dodel, P., Dastugue, G., and Bresson, A., effect of dihydro-oxycodeinone (eucodal) on action of acetylcholine on leech muscle, III, 909.

Dodel, P., Dastugue, G., and Villedieu, (Mlle.), pharmacological properties of saponins from Dumoria and other sources, III, 612, 910.

Dodonova, E. V., differences in dehydrogenase content of pea seeds, III, 622.

Dodson, R. W. See Koskoski, W. Dodwadmath, R. P., reactivity of aryl p-alkoxystyryl ketones, II, 104.

Döllken, H., treatment of hæmorrhagic anæmia in rabbits with vitamin- $B_8$ , III,

Dörffel, J., clinic and pathological anatomy of poison gas injuries, III, 84.

Döring, G., histopathology of lumbosacral neuritis, III, 994.

Doerr, W., transposition of aorta and pulmonary artery, III, 410.

Dohan, F. C., Chambers, A. H., and Fish, C. A., metabolism of dogs with permanent diabetes produced by anterior pituitary extract, III, 574.

Fish, C. A., and Lukens, F. D. W., induction and course of permanent diabetes produced by anterior pituitary. extract, III, 439.

See also Lukens, F. D. W.
Dohan, J. S. See Woodward, G. E.
Doherty, D. G. See Behrens, O. K.

Doht, W. See Bomskov, C. Doisy, E. A., antihæmorrhagie compounds, III, 645. Œstrogenic substances, III, 677.

See also Doisy, E. A., jun.

Doisy, E. A., jun., Huffman, M. N., Thayer, S. A., and Doisy, E. A., solubilities of æstrogens, III, 510.

Doja, M.Q., cyanine dyes of pyridine series, II, 21.

Dolar-Mantuani, L., and Koritnig, S., felspars from Schwanberg (Styria), I,

Dolby, D. E., Nunn, L. C. A., and Maclean, I. S., constitution of arachidonic acid, II, 4.

See also Hopkins, R. H.

Dolby, R. M., accurate constant-temperature bath and storage cabinet for operation below room temperature, I, 177.

Dolce, F. A. See Jordon, J. W. Dole, K. K., kinetics of reactions in hetero-

geneous systems. VI. Hydrolysis of acid halides by water, I, 119.

Dole, M., Roberts, R. M., and Holley, C. E., jun., theory of glass electrode. V. Influence of negative ions, I, 283.

and Swartout, J. A., twin-ring surface tensiometer. I. Apparent surface tension of potassium chloride solutions, I, 256.

Dole, V. P., jun., and Morison, R. S., reflex activation of dorsal root dilators, III, 341.

Doles, H. McG., relationship of gastric juice and food to blood pressure, III, 844.

Dolger, H. See Pollack, H.

Dolgoplosk, B. A., and Korneev, molecular volume of butadiene at different pres-

sures, I, 29.

Dolgopol, V. B., and Markus, H. T., diagnostic method for testing virulence of eoryne-bacteria, III, 308.

See also Werlin, S. J. Dolgov, B. N. See Volnov, J. N.

Dolin, P., and Erschler, B., kinetics of processes on platinum electrode. Kinetics of ionisation of hydrogen adsorbed on platinum electrode, I, 338.

Dolin, P., Erschler, B., and Frumkin, A., kinetics of processes of platinum electrode. II. Rate of discharge of H ions and rate of over-all process of hydrogen evolution on platinum. III. Influence of diffusion of molecular hydrogen on capacity of platinum electrode, I, 338.

Doljanski, L., Goldhaber, G., and Pikovski, M., inactivation of causative agent of fowl leukosis by X-rays, III, 538.

Palevitsch, M., and Goldschmidt, J., duration of latent period preceding growth of adult tissue in vitro, III, 321.

Dolliver, M. A. See Christiansen, W. G. Dolman, C. E., Kerr, D. E., and Helmer, D. E., new phage and susceptible W form of S. typhi isolated from typhoid fever case, III, 807.

Domanski,  $\hat{T}$ . J., classification of urinary calculi, based on composition, III, 203.

Domingo, W. R. See Loosjes, R. Domm, A. H. See Flippin, H. F., and Reinhold, J. G.

Domnin, N. A., distribution of multiple linkings in ring systems. IV. Six-membered rings with allene system of linkings, II, 318.

Donahue, C. H. See Romig, R. C.

Donahue, J. K., occurrence of cestrogens in ovaries of winter flounder, III, 440.

Donelson, E. G., Ohlson, M. A., Kunerth, B. L., Patton, M., and Kinsman, G. M., anthropometric data on college women of the Middle-States, III, 240.

and Wall, L. M., blood of high-school girls, III, 958.

Doney, L. M. See Badger, A. E.

Donleavy, J. J., and English, J. jun., alkamine esters of alkylthiol-substituted phenylcarbamic acids, II, 220.

Donnally, H.H., and Weil, A.J., formolised vaccinia virus, III, 478.

Donnay, J. D. H., width of albite-twinning

lamellæ, I, 135. Morphological analysis of danburite, I, 135.

Donnell, C. K., Dietz, J. H., and Caldwell, W. T., 4-aminodiphenyl-4'-sulphonamide, II, 192.

See also Caldwell, W. T

Donnell, H. See David, N. A.

Donnelly, J. C., objective tinnitus aurium, III, 261.

Donnet, V. See Malméjac, J.

Donovan, G. E., and Bannister, M., vitamin- $B_1$  in diphtheria, III, 456.

Donovan, P. B., and Harsh, G. F., serumsodium concentrations of allergic and non-allergic persons, III, 420.

Donovan, T. J., staphylococcal meningitis treated with sodium sulphathiazole, III,

Dooley, M. S., effects of irritation of upper airway on spleen volume, III, 655.

Dor, B. B. See under Ben-Dor, B. Doraiswami, C. S. See Narasimhaiya,

Doran, R. F. See Taylor, N. W.

Doran, R. L., and Henderson, W. J., new reactions in nickel, I, 442.

Doran, W. T., and Hanssen, E. C., recurrent cholangitis due to common duct stone associated with colon bacillus infection, III, 514.

Dorée, C. See Bellamy, L. J.

Dorfman, A., Rice, L., Koser, S. A., and Saunders, F., inhibition of respiration of dysentery bacilli by sulphapyridine, III, 380.

See also Saunders, F.

Dorfman, F. See Foster, C. Dorfman, R. I., comparative activity of naturally occurring cestrogens infantile rat uterus and vagina, III, 268. Fate of testosterone in man, III, Ætioallocholan-3-(β)-ol-17-one (isoandrosterone) as metabolite of testosterone in human male, III, 761. Estrogenic substance present in neutral fraction of human pregnancy urine, III, 871.

See also Boatner, C. H., Fish, W. R., and Ross, M.

Dorling, G. C., and Eckhoff, N. L., chemotherapy of abdominal actinomycosis, III,

Dorman, S. C., Hale, W. C., and Hoskins, W. M., laboratory rearing of flesh flies: relation between temperature, diet, and egg production, III, 110.

Dorn, H. See Collins, S. D. Dorn, H. F., and Horn, J. L., reliability of cancer death certificates, III, 889.

Dorne, M., and Friedman, T. B., derris root dermatitis, III, 298.

Dornuf, G., pathogenesis of renal dwarfism, III, 364.

Dost, F. H., hæmorrhagic aleukia in thrombosis of splenic vein, III, 327. Treatment of intoxication with plasma transfusions, III, 329.

Doster-Virtue, M. E., and Virtue, R. W., preparing isolated intestinal loops in the dog, III, 362.
See also Virtue, R. W.

Doty, D. M., determination of amino-acids in maize grain, III, 542.

Doty, J. R. See Eaton, A. G. Doty, P. M. See Aston, V. G.

Doub, H. P., and Jones, H. C., roentgenologic diagnosis of tumours of small bowel, III, 880.

See also Sanford, H.

Doubilet, H. See Shafiroff, B. G. P.

Doubly, J. A. See Hageman, P. O. Dougherty, E. Y., temperature and depth in hypogene ore deposition, I, 62.

Dougherty, G. See Stoner, G. G., and Westlake, H. E., jun.

Dougherty, R. W., physiological studies of induced and natural bloat in dairy cattle,

Douglas, A. E., electronic transitions of the BH molecule, I, 191.

and Herzberg, G., spectroscopic evidence of B2 molecule and determination of its structure, I, 26. Band spectrum of BN, I, 96.

Douglas, D. M., gastro-ileac reflex, III, 361. Renal ancurysm, III, 845.

and Mann, F. C., peritoneal irritation and intestinal activity, III, 513.

Dounce, A. L., improved method for recrystallising urcase, III, 795.

See also Sumner, J. B. Dourmashkin, R. L., and Worton, M., anuria due to bilateral ureteral impaction with concretions following use of sulphapyridine in pneumonia, III, 527.

Dow, D., and Zuckerman, S., effect of vasopressin, sex hormones, and adrenal cortical hormone on body-water in

axolotls, III, 189.

Dow, P., and Wiggers, C. J., limitations of myocardial recovery from fibrillation through countershock, III, 560.

Dow,  $\tilde{R}$ . P., active immunisation by intranasal route, III, 142. Dow, W. A., equilibrium constant equation, I, 114.

Dowden, C. W., clinical aspects of hepatic disease, III, 768.

Dowdy, A. H., and Lawrence, J. S., smalldose X-ray therapy in chronic leukæmia, III, 966.

Dowling, H. F., and Abernethy, T. J., causes of secondary fever in sulphapyridine-treated pneumonia, III, 1044.

Downer, J. See Cook, A. H.
Downing, J. G., legal aspects of patch tests, III, 1082.

Downing, J. R. See Buswell, A. M. Dozois, K. P., Carr, C. J., and Krantz, J. C., jun., sugar alcohols. XVII. Utilisation of sorbitol, styracitol, sorbose, pinitol, primulitol, and hydroxypyruv-

aldehyde, III, 53.

Dozzi, D. L., origin of blood-amylase and -lipase, III, 971.

Drabkin, D. L., precise spectrophotometric constants for hamochromogens and cytochrome-c on an iron basis, and analysis of cytochrome c spectrum, I, 148. Determination of copper as diethyl dithiocarbonate complex, I, 176. Spectro-photometric studies. VII. Establishment of precise spectrophotometric constants for cytochrome-c and hæmin derivatives on an iron basis. VIII. Microdetermination of iron in cytochrome-c and hæmin preparations, III, 831.

Dragišič, B. Sec Mayerhofer, E.
Dragstedt, C. A. Sec Campaigne, E. E.,
Gotzl, F. R., Holmes, C. A., Ojers, G., and Rocha e Silva, M.

Dragstedt, L. R. See Allen, J. G., and Clark, D. E.

Dragutsky, D. See Schwartzman, J. Drake, M. E., Gruber, C. M., and Haury, V. G., effects of sodium diphenylhydantoinate (dilantin) on vitamin-C level in tissues and vitamin-C exerction

in rats, III, 598.
Gruber, C. M., Haury, V. C., and Hart, E. R., effects of sodium diphenyl-hydantoinate (dilantin) on bloodascorbic acid level in guinea-pigs, III,

See also Haury, V. G.

Drake, N. L., Carhart, H. W., and Mozingo, R., structure of phellonic acid, II, 118. and Wolfe, J. K., cerin and friedelin. VI. Surface films of cerin, friedelin, and related substances, II, 265.

Drastich, L., analysis of inspired air during measurement of respiratory exchange,

III, 174.

Drawert, H., intake of substances by living plant cells. I. Rhodamines, III, 398.

Drazin, M. L., clinical factors of vitamin-B complex, III, 518.

Drea, W. F., growth of human tubercle bacilli, H 37, in synthetic media with and without agar, III, 1072.

Dreisbach, K. H. See Pfeiffer, C. Drektar, L. See De Beer, E. J. Dressen, W. C. See Neal, P. A.

Drever, H. I., geology of Ardgour, Argyllshire, I, 181.

Drevermann, E. B., experimental variation of urea content of blood, III, 839.

Dreveskracht, L. R., and Thiel, G. A., ionic effects on rate of settling of finegrained sediments, I, 488.

Drew, C. R., and Scudder, J., fate of cellular elements and prothrombin in citrated blood, III, 833.

Seudder, J., and Papps, J., controlled fluid therapy, III, 554. See also Scudder, J.

Drew, H. D. K., and Kelly, D. B., dithio-\(\beta\)isoindigo (dithiodiphthalimidine) from phthalonitrile. I.—III., II, 378.

Drew, J. E. See Vest, S. A.

Drew, R. O., and Kellogg, E. W., starting characteristics of speech sounds, III, 435.

Dreyer, R. M., geochemistry of quicksilver mineralisation. I. and II., I, 62, 135. Dreyfuss, A., and Meunier, P., photometric analysis of plasma coagulation, III, 160.

Dreyfuss, P., anomalous reactions of hydroxylamine, II, 54.

Drinberg, A. J., polymerisation and drying of oils and esters of fatty acids. Theory of polymerisation, II, 348.

and Juschin, V. G., polymerisation and drying of oils and esters of fatty acids. III. Heat of drying of linseed oil, II,

and Schepelev, A. I., polymerisation and drying of oils and esters of fatty acids. II. Heat of polymerisation and nature of polymerides of oils, II, 348.

and Shebrovski, V. V., glyceryl maleates.

Drinker, C. K., Warren, M. F., Maurer, F. W., and McCarrell, J. D., flow, pressure, and composition of cardiac lymph, III, 170.

See also Bowditch, M.

Drinker, P. See Bowditch, M. Driver, M. L., and Murlin, J. R., absorption of insulin from alimentary tract, III, 766. Drohocka, J. See Drohocki, Z.

Drohocki, Z., and Drohocka, J., quantitative electrospectrograph of brain awake

and narcotised, III, 178.

Drosdovsky, C. See Zéphiroff, P.

Drozdova, Z. B. See Sosedov, N. I. Druce, J. G. F., masurium—element 43, I,

Drucker, P., treatment of chorea minor with large doses of luminal, III, 40.

Druckman, J. S., apparent cure of sub-acute bacterial endocarditis, III, 1045. Druckrey, H., cestrogenic and carcinogenic

action, III, 279.

Druesne, M. A. A. See Biscoe, J. Druey, J. See Hartmann, M.

Drumm, P. J. See O'Connor, W. F. Drummond, J. C., Greenwood, A. W., Ridgway, R. R., and Williams, P. C., sesamé cake and antler growth, III, 355.

See also Ridgway, R. R. Drummond, W. F., and Tooke, T. B., jun., Waterhouse-Friderichsen syndrome (acute bilateral adrenal hæmorrhage)

[and its treatment], III, 754.

Drury, A. N., cardiac hypertrophy in rabbit: refractory period of a hypertrophied ventricular muscle, III, 78.

and Wightman, K. J. R., cardiac hypertrophy in rabbit: its production by arterio venous anastomosis, III, 78.

Drury, D. R., and Wick, A. N., effects of increased metabolism on ketosis, III, 1042.

See also Barnes, R. H., Greeley, P. O., and Wick, A. N.

Drury, H. F., amyl acetate as clearing agent for embryonic material, III, 242. Drury-White, J. M. See Hadfield, G.

Druyvesteyn, M. J., and Penning, F. M., mechanism of electrical discharges in gases of low pressure, I, 357.

Dry, T. J., and Hines, E. A., jun., rôle of diabetes in development of degenerative vascular disease with reference to incidence of retinitis and peripheral neuritis, III, 977.

Dry, T, J, and Tessmer, C, F, post-mortem findings in cases of diabetes [mellitus], III, 756

Dryerre, H., and Robertson, A., tissuelipins in pregnancy (ewe), III, 765.

Dubash, J., Clegg, O., and Vaughan, J., blood preservatives, III, 245. Dubinin, B. M. See Tschelincev, G. V.

Dublin, L. J., problems arising from ageing population, III, 109.

Dublin, W. B., Gregg, R. O., and Broders, A. C., mitosis of carcinoma of large intestine, III, 20.

Dubnoff, J. W., and Borsook, H., micromethod for determination of glycocyamine in biological fluids and tissue extracts, III, 543.

See also Borsook, H.

Du Bois, treatment of interdigital epider-

mophytia, III, 462.

Dubois, A., inoculation of rat bite fever in chick and chick embryo, III, 230. against heat by oils, III, 925. .

Du Bois, A. H., cytology of multiple myeloma, III, 281. and Ballion, M., protection of microbes

Du Bois, D., apparatus for study of rapid chemical reactions, I, 131. See also Stern, K. G.

Du Bois, E. F., heat loss from human body, III, 531.

See also Hardy, J. D. Du Bois, K. P. See Moxon, A. L.

Dubois, R., clinique et physiopathologie des maladies coeliaques [clinical physiology and pathology of coeliac disease], III, 544.

Dubos, R. J. See Hotchkiss, R. D., and Little, R. B.

Duboux, M., and De Sousa, A., hydrolysis of methyl acetate in relation to activities of hydrogen ion and water in concentrated solutions of hydrochloric acid alone and in presence of chlorides, I, 86.

Dubovtzeva, L. A. See Palladina, L. I. Dubrauszky, V., and Blazsó, A., action of sex hormones on vasopressin sensitivity of vascular system, III, 562.

Dubreuil, G., Jeanneney, G., and Collin, P., cystic and hyperplastic follicles and permanence of ovarian thecal gland, III,

Duchateau, G., Florkin, M., and Frappez, G., purine catabolism in Anodonta, III, 882. Enzymes of purine catabolism in insects, III, 923.

Duckert, R. See Wenger, P. Duckworth, J., and Godden, W., partition of serum-calcium in cow during parturition, III, 7. Magnesium and tooth formation in rat, III, 208. Effect of dietary fibre on alimentary secretion; fæcal phosphatase excretion and calcium and nitrogen balances, III, 282. Lability of skeletal magnesium reserves; influence of rates of bone growth, III,

Duden, C. W., and Abel, O., action of various neutralising agents on gastric acidity, III, 614.

Dührsen, W., presence of anaërobic sporing bacteria in milk in reference to its

hygenic quality, III, 140.

Duellman, M. D. See Koch, J. R.

Duemling, W. W., wetting agents [as bases

for lotions and ointments], III, 699. Duensing, F., arm reflexes elicited from shoulder-girdle, III, 984.

Duerschner, D. R. See Muschenheim, C.

Duff, G. L., and More, R. H., bilateral cortical necrosis of kidneys, III, 514.

Duff, J. C., o-hydroxyaldehydes from phenols and hexamethylenetetramine, II, 364.

Duff, P. A., and Darby, H. H., chick comb response to androgens, III, 576. Duff, V. B. See Bodansky, M.

Duffendack, O. S. See Saunderson, J. L. Duffield, J. W., temperature control for microtome knives, III, 958.

Duffield, T. J., and Di Mario, M., cancer mortality in New York City, 1901-1938, III, 103Ŏ.

Duffy, P. V., and Corsaro, J., suppression

of lactation by testosterone, III, 354. Duggan, W. F., rôle of anoxia in production of episcleritis and scleritis; treatment with vasodilators, III, 258. Vascular basis of uveal disease, III, 258. Acute retrobulbar neuritis as a manifestation of acute localised tissue anoxia; treat-

ment with vasodilators, III, 433. Duggar, B. M. See Dimond, A. E., and

Hollaender, A.

Duguid, A. M. E., and Heatheote, R. S. A., pharmacological action of ethyl phenylmethylpiperidinecarboxylate, III, 382.

Duhig, J. V., chemistry of viruses, III, 395.
Duke, F. R. See Smith, G. F.
Duke, K. L., germ cells of rabbit from sex differentiation to maturity, III, 719.
Dulin, B. H., and Burke, W. J., health

hazard in manufacture of fluorescent signs, III, 299.

Dulkin, S. See Kraus, I.
Duman, R. See Morel, F.
Dumanski, A. V., dispersoid and highmolecular systems, I, 40.

and Bravinok, M. S., swelling and fractionation of elastic gels, I, 45. Anomalous dispersion as a method of inves-

tigating colloidal systems, I, 45.

Dumarevskaja, V. N. See Plotnikov, V. A.

Dumitrescu, E. See Rougichitch, O. S.

DuMond, J., and Youtz, J. P., X-ray

method of determining rates of diffusion in the solid state, I, 179.

Dun, F. T., and Feng, T. P., neuro-muscular junction. XIX. Retrograde discharges from motor nerve endings in veratrinised muscle. XX. Site of origin of junctional after-discharge in muscle treated with guanidine, barium or escrine, III, 428.

Dunbar, F., emotions and bodily changes; psychosomatic studies, III, 431

Duncan, C. N., and Faulkner, J. M., penetration of blood clot by sulphanilamide, sulphapyridine, sulphathiazole, and sulphamethylthiazole, III, 125.

Duncan, C. W. See Hale, E. B. Duncan, D. R. L. See Rubenstein, B. B. Duncan, G. G., diabetic coma (ketosis), III, 783.

See also Barnes, C. A.

Duncan, P. A., Allen, E., and Hamilton, J. B., action of testosterone propionate on experimental menstruation in monkey, III, 354.

Duncanson, W. E., dimensions of physical quantities, I, 318. Momentum distribution in molecular systems. IV. Hydrogen molecular ion  $H_2^+$ , I, 450.

and Coulson, C. A., momentum distribution in molecular systems. V. Momentum distribution and the shape of the Comptin line for CH4, C2H  $C_2H_4$ , and  $C_2H_2$ , I, 450. See also Coulson, C. A.

Dundy, H. See Chobot, R.

Dunham, C. L., effect of carbon tetra-chloride and thyroxine on development of sensitivity to ovalbumin and ragweed pollen extracts in guinea-pig, IIĬ, 1080.

and Kautz, F. G., spondylarthritis an-

kylopoietica, III, 485.

Dunham, G. S. See Hill, A. E.

Dunham, K. C., and Rose, W. C. C., geology of iron ore field of South Cumberland and Furness, I, 355.

Dunicz, B. L., photochemical change of acetylene, I, 480.Dunihue, F. W., effect of cellophane peri-

nephritis on granular cells of the juxta-

glomerular apparatus, III, 1020. Dunker, M. F. W., and Grubb, T. C., antibacterial activity of fluorinated aromatic

mercurials, III, 1065.

Dunlop, E. C., Williamson, (Miss) B., Rodebush, W. H., and Buswell, A. M., ultraviolet absorption of diphenic acids, I, 239. Dunlop, J. B. W. See Carter, A. B.

Dunn, C. W., gynecomastia in male from stilbæstrol, III, 357.

Dunn, E. R., opercularis muscle in salamanders, III, \$22.

Dunn, F. L., and Sudman, A. T., ultraviolet spectrophotometric studies of human blood-plasma, III, 160.

Dunn, H. K., and White, S. D., statistical measurements on conversational speech,

111, 261.

Dunn, J. S., determination of nitrates (in water) by phenoldisulphonic acid method, I, 175. Fundamental lesion diffuse intracapillary ac**ute** glomerulonephritis, III, 16.

and Montgomery, G. L., acute necrotising glomerulonephritis, III, 273.

Dunn, M. S. See Butts, J. S., and Fox, S. W.

Dunn, T. M. See Anderson, W. A. D. Dunnell, R. L. See Hill, G. A.

Dunning, J. R. See Grosse, A. V., Nix, F. C., and Zahl, P. A.

Dunning, J. W., Fulmer, E. I., and Underkofler, L. A., oxidation of i-inositol by Acetobacter suboxydans, III, 708.

Dunning, W. F., Curtis, M. R., and Eisen, M. J., carcinogenic activity of methylcholanthrene in rats, III, 204.

Dunphy, J. E., and Botsford, T. W., silk in thyroid surgery, III, 435.

Dunstan, A. E. See Nissan, A. H. Duntley, S. Q. See Edwards, E. A. Du Pan, C. M., and Will, G., enterceysts with own nervous apparatus, III, 177.

Duperior, A., seasonal variations of cosmic-ray intensity and temperature of the atmosphere, I, 146.

Duquénois, P., and Ellert, M., cadmium iodide complex of narcotine, II, 235.

Durham, O. C., atmospheric allergens in Alaska, III, 813.

Durmaschkina, V. V. See Levkoev, I. I. Durrell, C., tridymite, I, 63.

Durruty, C.A. See Schlossberg, T. Dutcher, R.A. See Guerrant, N.B. Duthie, E.S. See Chain, E.

Dutt, P. See Bose, P. K.

Dutt, S., colour in relation to chemical constitution of phthalein dyes; phthaleins of mixed type, II, 13.

Dutta, P. C., sesquiterpene series. I. Synthesis of triethyl ester of C<sub>2</sub>H<sub>15</sub>(CO<sub>2</sub>H)<sub>3</sub> obtained from selinenes, II, 229.

Dutton, F. B., lecture demonstrations, I,

Du Vigneaud, V., and Brown, G. B., synthesis of new sulphur-containing aminoacid [lanthionine] isolated from sodium carbonate-treated wool, II, 188.

Chandler, J. P., and Moyer, A. W., inability of creatine and creatinine to take part in transmethylation in vivo,

III, 687.

Cohn, M., Chandler, J. P., Schenck, J. R., and Simmonds, S., utilisation of methyl group of methionine in biological synthesis of choline and creatine, III, 899.

Hofmann, K., Melville, D. B., and György, P., isolation of biotin (vita-min-II) from liver, III, 896.

Hofmann, K., Melville, D. B., and Raehele, J. R., free crystalline biotin, 11, 379.

Wood, J. L., and Binkley, F., acetylation in vivo of p-bromophenyl-d-cysteine, III, 525.

See also Brown, G. B., Cohn, M., György, P.; Irving, G. W., jun., and Miller, G. M.

Duyvené de Wit, J. J., quantitative and qualitative test for steroid hormones based on ovipositor reaction of female bitterling (Rhodeus amarus, Bloch), III,

Dvornikova, P. D., glycogen content in tissues of hibernating animals, III,

See also Ferdman, D. L. Dwan, P. F. See Platon, E. S.

Dwight, J. See Breiter, H. Dworski, M. See Gardner, L. U. Dwyer, C. M. See Loofbourow, J. R.

Dwyer, F. P., chelation in metallic triazen salts, II, 93. Isomerism of diazoaminoazo-compounds, II, 192. Preparation and properties of diazoamino-azo-compounds, II, 220. and Mellor, D. P., diamagnetism of

nickel triazen complexes, II, 94.

Sec also Bryson, A.

Dwyer, R. J., and Leighton, H. W., discoloration of quartz windows of an ultraviolet source, I, 282.

Dyas, H. E. See Jordan, W. E. Dyckerhoff, H., Biedermann, F., and Marx, R., coagulation of placental blood, III, 556.

and Pretzsch, W., effect of ascorbic acid on blood coagulation, III, 327.

Dyer, (Miss) E., dipeptides of  $\beta$ -aminoacids. II. Derivatives of  $\beta$ -phenyl- $\beta$ alanine, II, 99.

Dyer, F. J. See Folley, S. J.Dyer, H. M. See Irving, G. W., jun., and Roe, J. H.

Dyke, H. B. van. See under Van Dyke, H, B.

Dyke, J. H. van, origin of accessory thymus tissue: occurrence in man of thymus IV, III, 412.

Dyke, S. C., sudden death from wasp-stings, III, 1080.

See also Vida, B. L. D.

Dyniewicz, J. M. See Fantus, B., and Steigmann, F.

E.

Eadie, G. S., inhibition of choline-esterase by morphine in vitro, III, 533. See also Buchwald, M. E. Eager, D. See Giordano, A. S.

Eagle, H., Doak, G. O., Hogan, R. B., and Steinman, H. G., toxicity, treponemicidal activity, and potential therapeutic utility of substituted phenylarsenoxides. II. Monosubstituted phenylarsenoxides (C1; NO<sub>2</sub>; CH<sub>3</sub>; C<sub>2</sub>H<sub>4</sub>·OH; C(CH<sub>3</sub>):N·OH; NH<sub>2</sub>, OH, CH2 NH2 and derivatives). III. Monosubstituted compounds: acids, esters, benzophenone, methylsulphone, III,

See also Doak, G. O., and Moore, J. E. Eakin, R. E., McKinley, W. A., and Williams, R. J., egg-white injury in chicks and its relationship to deficiency of vitamin-H (biotin), III, 121.

Snell, E. E., and Williams, R. J., constituent of raw egg white capable of inactivating biotin in vitro, III, 210. Concentration and assay of avidin, injury-producing protein in raw egg-white, III, 897.

Earles, C. E. See Turner, A. W. Eardley, A. J., and Hatch, R. A., pre-Cambrian crystalline rocks of northcentral Utah, I, 434.

Earl, J. C. See Cornforth, J. IV. Earlam, W. T. See Morton, R. A.

Earle, (Miss) A. See Strong, F. M. Earle, K. V., sulphanilamide in treatment

of ulcerative granuloma, III, 609. Early, M. See Brücke, E. T. von.

East, B. R., and Kaiser, H., relation of dental caries in rural children to sex, age, and environment, III, 366.
East, M. B., Madinaveitia, J., and Todd,

A. R.,  $\beta$ -glucosaminase in testes, III, 470. Eastcott, E. V. See Rae, J. J.

Eaton, A. G., and Doty, J. R., heat production and blood and urine constituents after administration of l(-)-bistidine to dogs, III, 378.

Eaton, J. L. See Briggs, T. R. Eaton, M. D., and Rickard, E. R., com-

plement-fixation test as applied to epidemic influenza, III, 477. Eaton, O. N. See Wolfe, J. M.

Eaton, R. B. See Laubengayer, A. W. Ebaugh, F. G. See Ewalt, J. R., and O'Leary, P. A. Ebendorf, H. See Gold, A., and Pusitz,

M.~E.

Ebergényi, A., Takata reaction as test of ovulation, III, 192. Significance of occult intestinal hæmorrhage in newborn, III, 878.

Eberhard, H. M., temperature of gastrointestinal tract and effect thereon of hot and cold drinks and physical therapeutic agents, III, 1016. and Silverman, W. S., choline-esterase

determination [application to gastro-intestinal disease], III, 623.

Eberhard, T. P., effect of alcohol on

cholesterol-induced arteriosclerosis rabbits, Ill, 174.

Eberly, K. See Kharasch, M. S. Ebers, E. S., and Nielsen, H. H., increasing

life of Nernst glowers, I, 90.

Ebert, R. H. See Sanders, A. G. Ebert, R. V., and Stead, E. A., jun., error in measuring changes in plasma volume after exercise, III, 553. Demonstration that in normal man no reserves of blood are mobilised by exercise, adrenaline, and hæmorrhage, III, 652. See also Stead, E. A., jun.

Eby, L. T. See Campbell, K. N. Echagüe, E. S., effect of veratrine on action

current of heart, III, 247.

Echols, D. H., encephalography in neuropsychiatry, III, 856.

Eck. J. C., and Hollingsworth, E. W., structure of "7-dehydrocholestene isomeride," II, 92.

Eekhardt, R. E., and Johnson, L. V., comparison of two methods of measuring dark adaptation, III, 668.

Eckart, C., thermodynamics of irreversible processes. III. Relativistic theory of the simple fluid. II. A correction, I, 150.

Eckenrode, B. See Day, H. G.

Ecker, A. D., arsenic as cause of subacute encephalomyelitis, III, 665.

and Deren, M., apoplexy apparently precipitated by low blood pressure, ÎII, 500.

Ecker, E. E., Pillemer, L., and Kuehn, A. O., thermostability of heat-stable components of complement, III, 554. See also Pillemer, L.

Ecker, W. R., sulphanilamide in small animal practice, III, 35.

Eckert-Möbius, A., clinic and pathological anatomy of poison gas injuries, III, 84. Eckhoff, N. L. See Dorling, G. C.

Eckstein, G., sleep of canaries, III, 856. Eckstein, H. C., lipin metabolism, III, 212. See also Singal, S. A., and Treadwell,

C. R.Eddy, C. R. See Rodebush, W. H. Eddy, R. D., Machemer, P. E., and Menzies. A. W. C., retroflex aqueous solubility curves and respective solubilities of monohydrate and monodeuterate of manganous sulphate in ordinary and in

deuterium water, I, 373. Eddy, W. H. See Mackie, T. T.

Eden, A., excretion of copper in the rabbit, III, 290. Blood-copper of Northum-brian sheep, III, 492. Blood-copper of ewes during pregnancy, III, 838.

Eden, K., loss of consciousness in types of

head injury, III, 992. See also Hilton, E. L. G.

Eden, K. C. See Trotter, W. R. Edens, C. O. See Johnson, T. B. Ederstrom, H. E. See Brown, F. A.

Edgar, J. L., and Paneth, F. A., separation of ozone from other gases, I, 482. Determination of ozone and nitrogen dioxide in the atmosphere, I, 487.

Edgell, W. F. See Glockler, G. Edgerton, R. O. See Bachmann, W. E.

Edinger, T., brain of Pterodactylus, III, 949. Edmonds, S. M., and Birnbanm, N., ferric

thiocyanate, I, 345.
Edmondson, H. A., and Fields, I. A., calcium in acute pancreatic necrosis, 111, 362.

See also Glass, S. J.

Edson, J. N. See Congdon, E. D.

Edward, D. G. ff., pathogenicity and toxicity of Bacterium alkalescens for laboratory animals, III, 51.

Edwards, E. A., Hamilton, J. B., Duntley, S. Q., and Hubert, G., cutaneous vascular and pigmentary changes in castrate and eunuchoid men, III, 353.

Edwards, H. E., oral desensitisation in food allergy, III, 56.
Edwards, J. C. See Terry, L. L.

Edwards, J. E. See Herren, E. Y. Edwards, L. B. See Long, P. H.

Edwards, O. S., and Lipson, H., experimental technique in study of alloys by X-rays, I, 347.

Lipson, H., and Wilson, A. J. C., structure of cobalt, I, 452.

Edwards, T. I. See Neal, P. A. Edwards, W. See Polding, J. B.

Effkemann, G., and Müller-Jäger, E., anterior pituitary insufficiency after severe post-partum hæmorrhage, III, 96.

Efimenko, O. M., and Naugolnaja, T. N., ammonia and volatile amines in plants, III, 941.

Efremov, N. E., geochemical peculiarities of serpentinites of the north Caucasus. 1, 182. Classification of serpentine minerals by thermal analysis, I, 182.

Efremov, N. N., solubility in water of nitro-derivatives of phenol and dihydr-

oxybenzenes, I, 253.

Efron, B. G., and Boatner, C. II., significance of scratch test reactions to purified extracts of ragweed pollens, III, 1080.

Boatner, C. H., and Everett, P., treatment of asthma and hay fever with purified extracts of house dust, III, 813.

Boatner, C. H., and Pabst, M. R., significance of scratch test reactions to purified house dust extracts, III, 313.

See also Boatner, C. H., and Pabst, M. R.

Egan, C. J. See Giauque, W. F. Egan, E. P., jun. See Tarbutton, G. Egana, E. See Lipschütz, A.

Egana, E. See Lipschutz, A.

Ege, J. F., jun. See Elkins, H. B., and
Pinto, S. S.

Eggers, V. See Link, G. K. K.

Eggertsen, F. T. See Kolthoff, I. M.

Eggleston, L. V. See Krebs, H. A.

Eggleton, M. G., Pappenheimer, J. R., and Winton, F. R., ureter, venous, and arterial pressures in isolated kidney of dog, III, 202.

Egloff, G., and Knder, R. C., molal volume relationships among aliphatic hydrocarbons at their b.p., I, 329.

Egorova, A. A., resistance of thermophiles to high temperatures, III, 535.

Eguren, E., effect of silver nitrate, "zinc-genol," and zinc oxyphosphate on dental pulp, III, 219.

Ehni, G. J. See Crandall, L. A., jun. Ehrenfeld, I., and Sturtevant, M., effect of smoking tobacco on gastric acidity, III,

361. Ehrenhaft, F., stationary electric and magnetic fields in beams of light, I, 93.

and Banet, L., magnetisation of matter by light, I, 158.

Ehrenstein, M., and Stevens, T. O., steroids.

IV. Degradation products of cholic acid and synthesis of 7:12-dihydroxyprogesterone, II, 68.

Ehret, W. F., and Gurinsky, D. H., laboratory high-vacuum furnace, I, 282. Ehrhardt, K., and Bureck, P., urinary

prolan excretion in chorion epithelioma, III, 579.

Ehringhaus, A., rotary compensators with a large measuring range, I, 389.

Ehrlich, S. B. See Member, S.

Eichelberger, L., distribution of body-water in skeletal muscle and liver in normal dogs following injections of potassium salts, III, 526.

[with Roma, M.], distribution of body water and electrolytes in skeletal muscle of dogs with experimental hydronephrosis following injections of potassium salts, III, 849

Eicher, M. See Kuper, J. B. H. Eichhorn, E. A., intravenous inoculation

of chick embryos, III, 156.

Eichorn, K. B., zenkerising paraffin sections of formaldehyde-fixed tissues, 111, 958

Eickhoff, W., thyroid gland and allergy, 111, 1001.

See also Sunder-Plassmann, P.

Eide, C. See Cope, A. C.

Eidelman, M. M., stability of dehydro-ascorbic acid in acids, III, 685. Effect of adrenaline on biochemical transformations of the carbohydrates in muscle tissue, III, 900.

Eidelsberg, J., and Madoff, I., effectiveness of methyltestosterone administered

orally, III, 1009.

Eidinow, A., action of radiations emitted by radium plaques, unfiltered and filtered radon seeds, and intravenous injection of radon dissolved in blood, III, 384. Immunity reactions after ultra-violet irradiation of the skin, III, 632.

Eigen, L. A., subacute bacterial endocarditis on right ventricular wall opposite ventricular septum defect, III, 973.

Eiler, J. J. See Allen, F. W. Einhorn, G. L., and Knorozova, G. V., preparation of crystalline folliculin from stallion's urine, III, 676.

Einhorn, M., oral and nasal simultaneous aspirators and their use in gastroenterology, III, 678.

Einhorn, N. H. See Holmes, J. W.

Einsele, W., manganese and iron stratification in "eutropic" lakes, I, 487.

Eirich, F., viscosity and nature of sub-

stances of high mol. wt. in solution, 1, 208.

Eirich, F. R., and Rideal, E. K., air-driven ultracentrifuge, I, 60.

Eisen, D. See Breslin, L. J.

Eisen, M.J. See Dunning, W.F.

Eisenberg-Merling, K. B., living vaccinia virus, III, 145.

Eisenbud, L., and Wigner, E. P., invariant forms of interaction between nuclear particles, I, 361.

Eisenman, A. J. See Smith, P. K. Eisenschitz, R., specific heat of  $\beta$ -brass, 1,

Eisenstadt, W. S., contact dermatitis of

face due to nail polish, III, 918.

Eisenstein, V. W., treatment of chronic adult tetany of gastro-intestinal origin

with dihydrotachysterol, III, 753.

Eiserth, P., adenomyoma of gall bladder, III, 107. Stone formation in gallbladder wall, III, 108.

Eisner, M. See Young, W. G. Eker, I. M. See Bobranski, B.

Ekwall, (Miss) G., and Westgren, A., erystal structure of CuMg<sub>2</sub>, I, 31.

Elaut, L., path and structure of helicoid artery in renal sinus of man, III, 1019.

Elbe, G. von, and Lewis, Bernard, reaction between hydrogen and oxygen: upper explosion limit and reaction in its vicinity, I, 170.

See also Lewis, Bernard. Elbel, H., blood-alcohol behaviour [effect

of drugs], III, 381.

Elberg, V. A., nutrition and senility, III, 20. Elden, W. H. See Kupperman, H. S. Elder, A. L., red gold sols, I, 111.

and Springer, R. A., application of hydrogen-bridge theory to sorption from solution by silica gel, I, 37.

See also Spencer, C. C.

Elder, A. T., aniline dyes for chronic blepharitis, 111, 126.

Elder, J. H., attempt to recover sodium pregnanediol glycuronidate from chimpanzee pregnancy urine, III, 672.

Elderfield, R. C. See Chen, K. K., Stempel,

A., and Tracy, A. H.

Eldering, G., antigenic properties of Hamophilus pertussis and related organisms.

I. Antigenic fraction from Brucella bronchiseptica, III, 1070.

Eley, D. D., interchange of hydrogen in adsorbed film on tungsten, I, 463.

and Rideal, E. K., catalysis of parahydrogen conversion by tungsten, I,

Elftman, H., work done by muscles in running, III, 86.

Elgart, S., and Harris, J. S., determination of lactic acid in blood, III, 168.

and Nelson. N., elimination of acetoacetic acid in determination of pyruvic acid by Lu's method, III, 543.

Elias, H., growth of adepidermal melanophore network of Discoglossus pictis, III, 723.

Eliaschberg, I.A. See Levina, R.J.

Eliaschevitsch, M., vibrational frequencies of polyatomic molecules, I, 192.

Eliases, M., and Kondo, B. O., electro-cardiogram in later life, III, 650.

Eliason, E. L., and Brown, R. B., calcified constrictive pericarditis, III, 79.

Elitzak, J., and Widerman, A. H., nonspecific ulcerative colitis in childhood, III, 881.

Elitzur, A. G., hydride method of determining water in aquo-complex compounds. I., I, 425.

Elkeles, G., evolution of Trypanosoma cruzi, III, 799.

Elkins, H. B., Ege, J. F., jun., and Ruotolo, B. P., evaluation of lead hazard, III, 791.

See also Pinto, S. S.

Elledge, B. E. See Griggs, M. A. Ellenberg, M. See Pollack, H. Eller, C. H., and Phair, J. J., diphtheria immunisation, natural and artificial, III, 1068.

Ellert, M. See Duquénois, P.

Ellett, A., Olsen, L. O., and Petersen, R., quenching and depolarisation of resonance radiation by collisions with molecules of a foreign gas, I, 398.

Elliker, P. R., and Fraser, W. C., influence of time and temperature of incubation on heat-resistance of Escherichia coli,

III, 51.

Ellinger, F., Roentgen pigmentation in gold-fish, III, 621.
Ellinger, F. H., and Sykes, W. P., nickel-

tungsten system, I, 253.

Ellinger, P., site of acidification of urine in frog's and rat's kidney, III, 16.

See also Chick, H.

Elliott, C. K. See Thompson, J. C. Elliott, D. R., and King, L. D. P., radio-active 12Sc, 38A, and 31S, I, 189. See also King, L. D. P.

Elliott, J., Busby, G. F., and Tatum, W. L., preparation of dilute plasma, III, 329.

See also Andrews, E. D.

Elliott, J. H., and Kilpatriek, M., effect of substituents on acid strength of benzoic acid. I. In methyl alcohol. II. In ethyl alcohol. III. In ethylene glycol and n-butyl alcohol. IV. In dioxanwater, I, 210.

Elliott, K. A. C., and Libet, B., oxidation of glycogen by brain suspensions, III, Elliott, M. A., Sklar, A. L., and Acree, S. F., determining ascorbic acid concentration, III, 522

Elliott, N. See Lewis, B., and Richardson, J. Elliott, R. H. E., jun., and Whipple, M. A., interrelationship of capillary platelet and splenic factors in thrombocytopenic pur-

pura, III, 647. Elliott, S. D. See Blakemore, F.

Ellis, C. See Alexander, H. E. Ellis, D. J. See Dadswell, H. E.

Ellis, E. L., and Spizizen, J., rate of bacteriophage inactivation by filtrates of *Escherichia coli* cultures, III, 627.

Ellis, F. A., and Kirby-Smith, H., effect of ultra-violet radiation on X-rays, III, 45. Contact dermatitis from nail polish, III,

Ellis, J. W., and Bath, (Miss) J. D., hydrogen bridging in cellulose as shown by infra-red absorption spectra, I, 26.

See also Bath, (Miss) J. D., and Sponsler,

Ellis, N. R., and Madsen, L. L., relationship of diet to development of locomotor inco-ordination resulting from nerve degeneration in pigs, III, 683. See also Etten, C. van.

Ellis, R. V., and McKinlay, C. A., allergic pneumonia [following prontosil], III, 908. Ellis, R. W. B., arachnodactyly and ectopia

lentis in father and daughter, III, 411. and Creveld, S. van, syndrome characterised by ectodermal dysplasia, polydactyly, chondro-dysplasia, and congenital morbus cordis, III, 2.

Ellison, F. S. See Stone, L. S.

Ellison, R. T., and Carabelli, A. A., tense pneumothorax in an infant, III, 175.

Ellman, P., pulmonary asbestosis, III, 920. Lawrence, J. S., and Thorold, G. P., gold therapy in rheumatoid arthritis, III, 130.

Ells, V. R., and Marshall, C. E., determination of exchangeable bases by Lundegardh spectrographic method, I, 218. See also Uber, F.  $\hat{M}$ .

Elman, R., plasma-protein replacement in burns, III, 330.

and Sachar, L. A., panereas, III, 879. Elmer, A. W., Giedosz, B., and Scheps, M., pathological changes produced by prolonged experimental hyperthyroidism, III, 261.

Elmore, G. V. See Friedman, H. B.

Elmore, N. See McBee, E. T. Elmore, W. G., interpretation of ferromagnetic colloid patterns on ferromagnetic crystal surfaces, I, 7.

Elsbach, E. J., new treatment for hayfever, III, 812.

El Sherbini, M. A., and Yousef, Y. L., reversal of rectification by heat in crystal contacts and its analogy to a thermo-electric phenomenon, I, 158. Depend-ence of the direction of rectification in copper pyrites on voltage, temperature, and time of measurement, I, 294.

Elsom, K. A., and Ferguson, L. K., medical versus surgical treatment of idiopathic ulcerative colitis, III, 1017.

See also Landis, E. M.

Elsom, K. O., Lewy, F. H., and Heublein, G. W., experimental human vitamin-B complex deficiency, III, 283.

Elsworth, F. F., and Phillips, H., action of sulphites on cystine disulphide linkings in wool. II. Influence of temperature, time, and concentration on the reaction, III, 275.

Eltinge, E. T., and Reed, H. S., effects of zinc deficiency on roots of Lycopersicum

esculentum, III, 61.
Elvehjem, C. A., vitamin-B complex in normal nutrition, III, 115.

See also Anderson, H. D., Arnold, A., Axelrod, A. E., Conger, T. W., Frost, D. V., Hegsted, D. M., Hove, E., Lipton, M. A., McKibbin, J. M., Mills, R. C., Schantz, E. J., Wachtel, L. W., Wagner, J. R., Waisman, H. A., and Wegner, M. I.

Elving,  $\tilde{P}$ . J., and McElroy, W. R., removal of nitrogen oxides in semi-micro-determination of carbon and hydrogen, II,

Elvove, E. See Dean, H. T. Elwyn, H., diabetic retinitis, III, 259.

Ely, R. See Moore, L. A.

Emanuel, N. M., slow oxidation of hydrogen sulphide, I, 472. Pavlov,  $\hat{D}$ . S., and Semenov, N. N., SO

as an intermediate product of oxidation of hydrogen sulphide, I, 217. See also Semenov, N. N.

Embree, N. D., physicochemical assay of vitamin-A, III, 518.

Emeleus, H. J., Maddock, A. G., and Reid, C., derivatives of monosilane. II. Iodocompounds, I, 383.

Emelianova, E. A. See Schpitalski, A. S. Emerson, G. A., and Evans, H. M., successive generations of vitamin-E-low rats, III, 600. Growth and greying of rats with total "filtrate factor" and with pantothenic acid, III, 1036.

Northup, D. W., and Van Liere, E. J., toxic effects of sulphanilamide, sulphapyridine, and rodilone in anoxia, III,

See also Morrison, J. L., Nelson, M. M., and Telford, I. R.

Emerson, K., jun., Futcher, P. H., and Farr, L. E., relation-of-high and low urea clearances to inulin and creatinine clearances in children with nephrotic syndrome, III, 1020.

Walsh, F. B., and Howard, J. E., idiopathic hypoparathyroidism, III,

See also Farr, L. E., and Thorn, G. W.

Emerson, L. See Hunscher, H. A. Emerson, W. S., [preparation of] methyl-

anilines by demethylation of dimethylanilines, II, 285.

and Davis, J. W., quinoline derivatives, 11, 376.

Hess, S. M., and Uhle, F. C., aldol condensations with aliphatic Schiff's bases,

Neumann, F. W., and Moundres, T. P., reductive alkylation of hindered aromatic primary amines, II, 191.

Reed, S. K., and Merner, R. R., sec. and tert. amines from azo-compounds, II, 165.

and Uraneck, C. A., sec. and tert. amines from nitro-compounds, II, 165.

Emery, B. E. See Upton, J. R.

Emery, E. S., jun. See MeGee, L. C. Emery, F. E., and Gottsch, L. G., pituitary implants and extracts in adrenalectomised rats, III, 349.

See also Griffith, F. R., jun., Matthews, C. S., and Russell, H. K.

Emge, L. A., and Laqueur, G. L., influence of ovarian hormones on thyroid hyper-

plasia, III, 762. See also Davis, J. H., and Laqueur,

G. L.

Emmart, E. W., action of 2-amino-5-azotoluene in production of liver tumours of rats and behaviour of these tumours in vitro, III, 368.

and Smith, M. I., effect of tubercle bacilli on chick embryo membrane,

III, 1073.

Emmel, M. W., hæmatology of avitaminosis-A in dogs and rabbits, III, 6. Tissue autolysis applied to canine therapy, III, 1078. Emmel, V. M., changes in rat's kidney

following interruption and restoration of

renal circulation, III, 160.

Emmelin, N., action of evipan on organs supplied by cholinergic nerves, III,

462. Emmens, C. W., growth of reproductive and endocrine organs of female rabbit, III, 190. Production of ovulation in rabbit by intravenous injection of salts of copper and cadmium, III, 191. Response of inbred mice to cestrone, III, 193. Dose/response relation for principles of pituitary gland, and of serum and urine of pregnancy, III, 265. Rate of absorption of androgens and estrogens in free and esterified form from subcutaneously implanted tablets, III, 577.

and Bradshaw, T. E. T., mutual antagonism between œstrogens and an-

drogens, III, 194.

and Ludford, R. J., action of estrogens on female genital tract, III, 871. See also Callow, N. H.

Emmett, A. D., Bird, O. D., Brown, R. A., Peacock, G., and Vandenbelt, J. M., determination of vitamin- $B_2$  (riboflavin); comparison of bioassay, microbiological, and fluorometric methods, III, 597.

Emoto, S. See Ichiba, A., and Ugami,

Enders, J. F. See Feller, A. E.

Enders, R. K., and Leekley, J. R., cyclic changes in vulva of marten (Martes americana), III, 673.

See also Wislocki, G. B.
Endicott, (Miss) M. M., and Johnson,
T. B., pyrimidines. CLXX. Interaction of chloromethyl ether with pyrimidines. I. CLXXIII. Interaction of chloromethyl ether with 4-methyluracil. II., II, 270, 377.

Endo, S. See Nishina, Y. Engard, C. J., translocation of nitrogenous substances in the Cuthbert raspberry, III, 400.

Engel, D., action of radium on bones, III, 2. Permeability of synovial membrane, III, 18. Ætiology of multiple deformities, 111. 238. Sympathetic nervous system and capillary permeability, III, 250. Engel, L. L., Thorn, G. W., and Lewis,

R. A., urinary excretion of steroid com-

pounds. I., III, 443.

Engel, M. R., Bronstein, I. P., Brodie, A. G., and Wesoke, P., roentgenographic cephalometric appraisal of untreated and treated hypothyroidism, III,

Engel, P., psychical activity of male and female sex hormones of horse urine, III, 677.

Engel, S., structure of bronchiolar wall relative to its function, III, 83.

Engelbreth-Holm, J., acceleration of development of mammary carcinomas in mice by methylcholanthrene, III, 1023.

Engelbreth-Holm, J., and Lefèvre, H.. acceleration of development of leukæmias and mammary carcinomas in mice by 9:10-dimethyl-1:2-benzanthrene, III, 1023.

Engelfried, J. J., relationship between allergic activity and protein fractionation of selected foods, III, 479.

Engelhard, H., treatment of malignant and toxic diphtheria with adrenal cortex

extract and vitamin-C, III, 349. Engelhardt, E., subarachnoid hæmorrhage in childhood [rôle of vitamins], III, 344. Engelhardt, H. T. See Sodeman, W. A. Engle, E. T., and Levin, L., anterior pituitary and chorionic gonadotropins,

ÎII, 439*.* 

Engle, J. B., and Macbrayer, R., impotence in dog; its treatment with male hormone, III, 12.

Englert, M. E. See Loofbourow, J. R. Englis, D. T. See Shannon, W. J.

English, J., jun., wound hormones of plants. V. Synthesis of analogues of traumatic acid, II, 184.

See also Donleavy, J.J.

English, J. P., Willius, F. A., and Berkson,  $\bar{J}$ ., tobacco and coronary disease, III, 248. English, W. H., Alzheimer's disease, III,

Engman, M. F. See MacCardle, R. C. Engman, M. F., jun. See MacCardle, R. C. Ennor, A. H., and Anderson, C. M., influence of anterior pituitary extracts on rate of oxidation and reduction of

glutathione in tissues, III, 575. See also Corkill, A. B.

Enns, T. See Hughes, A. L. Enright, J. R., cure of typhoid carrier with soluble iodophthalein, III, 462.

Enright, L. S. See Heymann, W. Enselme, J. See Mouriquand, M. G. Enselme, M. J. See Monriquand, M. J. Ensor, G. See Baehmann, G., and Haldi, J.

Ensworth, H. K. See Plummer, N. Entenman, C., and Chaikoff, I. L., is choline the factor in pancreas that prevents fatty livers in departreatised dogs maintained with insulin? III, 524.

Chaikoff, I. L., and Montgomery, M. L., rôle of external secretion of the pancreas in lipin metabolism; influence of daily ingestion of pancreatic juice on level of blood-lipins in completely departreatised and duct-ligated dogs maintained with insulin, III, 379.

See also Chaikoff, I. L., Fries, B. A., and Montgomery, M. L.

Entres, J. L., Mendelian figures in Hunt-

ington's chorea, III, 987. Entrikin, P. P., dielectric behaviour of solutions of gliadin, I, 467.

Enzer, N. See Simonson, E. Enzmann, E. V. See Whelden, R. M. Epelbaum, S. E., carbohydrate metabolism in central and peripheral nervous systems, III, 745.

and Skvirskaja, E. V., effect of age on glycolysis in brain, III, 744.

Epelbaum, V., and Brager, A., examination of vanadium nitride. I. Process of thermal decomposition of ammonium vanadate and formation of vanadium nitride, I, 277.

See also Brager, A. Epelberg, J., and Lowy, A., alkylation of diphenyl using alkyl sulphates in Friedel-

Crafts syntheses, II, 90.

Ephrussi, B. See Khouvine, Y. Epik, P. A., solubility of salts in acids, I,

Eppinger, E. C., and Burwell, C. S., mechanical effects of patent ductus arteriosus on heart, III, 248.

Burwell, C. S., and Gross, R. E., effects of patent ductus arteriosus on circulatiôn, III, 973.

Epprecht, A. See Karrer, P.
Epps, C. H. See Bischoff, F.
Eppson, H. F. See Bradley, W. B.
Eppstein, S. H., and Morgulis, S., minimal daily requirement of rabbits for a-tocopherol, III, 287.

Epstein, A., physiology and pathology of bronchial asthmatic crisis, III, 736.

Epstein, J. See Glaser, J.

Epstein, J. A., conductometric determination of total fatty acid in blood and tissues, III, 820. Organic acids of brain, III, 989.

Epstein, L. A., and Chain, E., preparation and properties of substrate of lysozyme,

Epstein, L. F., Karush, F., and Rabinowitch, E., spectrophotometric study of thionine, I, 148.

See also Rabinowitch, E. Epstein, N. N., and Falconer, E. H., effects of neoarsphenamine and mapharsen on formed elements of blood, III, 220.

Erämetsä, O., chromatographic filtration of alkaline solutions of copper [complexes], I, 87. Effect of  $p_{\rm H}$  on precipitation of indium with hydrogen sulphide, I, 88. Separation of indium from tin by means of sodium hydroxide, I, 88.

Erb. I. H., and Summerfeldt, P., congenital anomalies of urinary tract in children and infants and their relation to chronic

pyuria, III, 273.

Erf, L. A., secretion of orally administered radio-iron in milk of cows, III, 784.

and Lawrence, J. H., phosphorus metabolism in neoplastic tissue, III, 1029. and Pecher, C., secretion of radiostrontium in milk of two cows follow-

ing intravenous administration, III, 443. Tuttle, L. W., and Scott, K. G., retention of orally administered radio-phosphorus by mice, 111, 290.

See also Tuttle, L. W.

Erfling, H. D., change of thermal expansion and electrical resistance of y-manganese on transformation into the a-form, I, 34. Erickson, B. N., and Ferguson, J. H.,

partition studies on clot-aiding and related blood-phospholipins, III, 245.

Hoffman, O., Beach, E. F., Williams, H. H., and Macy, I. G., correlated hæmatological, physical, and chemical studies of blood and stroma in polycythamia and beef embryo, III, 959.

Souders, H.J., Shepherd, M.L., Teague, D. M., and Williams, H. H., relation between cerebroside and neutral fat contents of blood plasma, erythrocytes,

and stroma, III, 558. See also Williams, H. H.

Erickson, C. C. See Dill, L. V. Erickson, J. O. See Neurath, H.

Ericsson, E., vitamin-C standards and -C deficiency, III, 27.

Eristavi, D. I., manganese slime carried off by the Kviril river, I, 181.

Erkama, J. See Roine, P. Erlanger, G., iontophoretic medication in

ophthalmology, III, 89.

Erlenmeyer, H., and Ueberwasser, H., structure-chemical investigations. II. Structure of thiazole compounds and Fe"-specific group, II, 77.

Ermakov, N. V., and Skipski, V. P., liberation of acetylcholine-like substance by abdominal nerve-chain in Scolopendra, IĬI, 861.

Ermakova, K. I., cold and hot flame of

ethyl ether, I, 419.

Ernandez, G., and Ionas, D., Ide's chromatic test for diagnosis of congenital syphilis, III, 1071.

Ernst, F., results of treatment of open pulmonary tuberculosis in adults, III, 848. Ernstene, A. C., auricular paroxysmal tachycardia in infant, III, 843.

and Kinell, J., shoulder pain after myocardial infarction, III, 171.

See also Wofford, C. P.

Erochin, I. S., plastic viscous properties of mica suspensions, I, 12.

Eros, G., fuchsin staining of network of cerebral blood vessels, III, 335.

Eroschevski, I. G. See Grechnev, M. A., and Rudakov, G. A.

Erschler, B., passivity of platinum. I., I, 470.

Tiurikov, G. S., and Smirnova, A. D., action of nickel oxide electrode. I., I,

See also Deborin, G., and Dolin, P.

Erskine, D. See Lloyd, V. E.

Erskine, S. L. W. See Clarke, B. R.

Ersner, J. S., treatment of obesity due to overeating with benzedrine sulphate, III, 127.

Ersner, M. S., Rush, I. A., and Myers, D., prostigmine methosulphate in treatment of deafness and tinnitus aurium, III, 434.

and Saltzman, M., progressive analogous nerve deafness in three successive generations with sex-linked inheritance, III, 506.

Erspamer, V., gall-stones produced by lack of vitamin-A in guinea-pigs, III, 108. Erve, J. van de. See Kinard, F. W.

Esafov, V. I., determination and detection

of dienes with conjugated ethylenic linkings. I., II, 344.
Guliakov, V. M., Kargopoltzeva, V. V., Kulakova, A. P., Razmislov, G. V., and Toporov, N. D., synthesis of hydrocarbons with conjugated ethylenic linkings. III., II, 309.

and Schpadi, A. V., products obtained by heating ricinoleic acid and its mixtures with oxalic acid, II, 118. Determination and detection of dienes with conjugated ethylenie linkings. II., II, 344.

and Smirnov, M. V., action of magnesium isoamyl bromide on mesityl oxide, II., II, 281.

Escher, G. C. See Geist, S. H. Eselson, B. N. See Miljutin, G.

Esh, G. C., and Guha-Sircar, S. S., soil and peat humic acids. I. Isolation and purification of the acids, II, 20.

Eskridge, L. C. See Hueper, W. C.
Espe, D., and Cannon, C. Y., length of
intestine of calves and its bearing on absorption of nutrients from chyme, III,

Esselen, W. B., jun., nutritional gizzard lesions in chicks, III, 121.

Essen, K. W., and Hansen, M., effect of exercise on galvanic skin reflex, III, 344. Essen-Möller, E., and Quensel, C. E., proof of paternity through assessment of

similarities, III, 158. Esser, M., congenital aplastic anæmia type Benjamin, III, 70.

Essex, H. E. See Brown, J. R., Harper, S. B., and Priestley, J. T.

Essex, H. F. See Hausner, E.

Essin, O., polarisation during electrolytic reduction of titanium ions, I, 418.

Derendjaev, S., and Ladigin, N., electrode polarisation in electrolytic preparation of potassium ferricyanide, I, 121.

Etala, E. See Pasqualini, R. Q. Etherman, A. See Bolschakov, P.

Etten, C. van, Ellis, N. R., and Madsen. L. L., thiamin requirement of young swine, III, 284.

Eubank, L. D. See Rodebush, W. H.

Euler, H. von, Euler, U. S. von, and Schlenk, F., pharmacological actions of cozymase, III, 463.

and Skaržyňski, B., hydrolysis of optically active dipeptides by malignant tumours and serum. I. and II., Ill, 369.

Euler, U. S. von, and Liljestrand, G., effect of carotid sinus denervation on respiration at rest, III, 339.

See also Euler, H. von.

Euw, J. von, and Reichstein, T., constituents of adrenal cortex and related substances. XLI. Δ4-Pregnene-17:20-diol-21-al-3one 20-monoacetate. XLII. Partial synthesis of substance S. XLVII. Partial synthesis of allopregnane- $3(\beta): 17(\beta):21$ -XĽVIII. triol-20-one (substance P). Partial synthesis of substance L, II, 46, 258.

Evans, B. H. See Creighton, M. Evans, C. A. See Green, R. G. Evans, C. H. See Webb, J. H.

Evans, D. L., structure and mineral zoning of the Pailaviri Section, Potosi, Bolivia,

Evans, E. See Militzer, W. E.

Evans, E. A., jun., metabolism of pyruvate in pigeon liver, III, 30.

and Slotin, L., utilisation of carbon dioxide in synthesis of a-ketoglutaric acid, III, 123. Rôle of carbon dioxide in synthesis of urea in rat liver slices, III, 212.

Evans, E. E.See Machle, W.

Evans, E. J. See Andrewartha, G. G. Evans, F., electric fields produced by cosmic

rays, I, 95. Evans, F. A. See Heintzelman, J. H. L. Evans, F. T., spinal anæsthesia with heavy percaine, III, 1052.

Evans, H. M., Simpson, M. E., and Lyons, W. R., influence of lactogenic preparations on production of traumatic placentoma in rat, III, 1007.

See also Emerson, G. A., Fraenkel-Conrat, H. L., Li, C. H., Nelson, M. M., Ray, R. D., Simpson, M. E., Telford, I. R., and Tishler, M.

Evans, J. N., and Singer, E., fluorescence microscopy applied to ocular tissues, III,

Evans, J. S., Varney, R. F., and Koeh, F. C., mouse uterine weight method for assay of cestrogens, III, 675.

Evans, L. K. See Booker, H. Evans, M. G. See Baughan, E. C., and Belton, J.W.

Evans, P. See Sale, H. M. Evans, R. D. See Morningstar, O., and

Schumb, W. C.

Evans, R. R., critical constants and van der Waals' equation, I, 106.

Evans, T. C., Robbie, W. A., Goodrich, J. P., and Slaughter, J. C., low temperature and radiosensitivity of skin of newborn rats, III, 1059.

Evans, W. C., Handley, W. R. C., and Happold, F. C., tryptophanase-indole reaction. IV. Production of tryptophanase by E. coli; effect of glucose and amino-acids on formation of trypto-phanase, III, 308.

Evans, W. E., jun. See Krantz, J. C., jun. Evans, W. E. F. See Chivers, E. M. Evans, W. H., vitamins in ophthalmology

and otolaryngology, III, 92 Evans, W. L. See Dauben, W. G., and

Linstead, R. P.

Everdingen, W. A. G. van, and Novons. A. K. M., irreducible metabolism and specific action of ultra-short waves, III.

Everett, D. H., and Wynne-Jones, W. F. K., dissociation constants of the methylammonium ions and basic strengths of methylamines in water, I, 299. Thermodynamics of acid-base equilibria, I, 376. Everett, P. See Efron, B. G.

Everett, R. H. See Hazen, H. H.

Evers, N., and Smith, Wilfred, composition and analysis of bile salts, III, 108. See also Adamson, D. C. M.

Eversole, W. G., and Deardorff, D. L., flow potentials through metals, I, 170. and Lahr, P. H., evidence for a rigid multilayer at a solid-liquid interface, I, 413.

See also Neros, C. A., and Wagner, G. H. Eversole, W. J., effects of pregneninolone and related steroids on sexual development in fish, III, 578.

Evreinova, T. See Kizel, A.

Evstropiev, E. S., structure of liquid binary mixtures of glasses and salts as revealed by their viscosity and electrical conductivity, I, 203.

Ewald, G., schizophrenia and insulin shock treatment, III, 990.

Ewalt, J. R., and Ebaugh, F. G., fever therapy in dementia paralytica, III, 990. Ewens, K. V. G., and Gibson, C. S., organic compounds of gold. IX. Structure of tetracthylsulphatodigold, (Et2Au) (SO4)2, II, 124.

Ewing, I. R., psychological aspects of deafness, III, 506.

Ewing, M. E., and Blatherwick, N. R., collecting and transporting small blood samples for hamoglobin determination, III, 161.

See also Blatherwick, N. R., and Larson,

Ewins, A. J., Butler, E. C. B., McCrea, H. M., and Melton, G., clinical experiences with sulphathiazole in therapy of staphylococcal infections, III, 125.

Exner, F. M. See Luria, S. E. Exton, W. G. See Rose, A. R.

Eyerly, J. B., comparative  $p_{\rm H}$  values within stomach, pylorus, and duodenum in antacid therapy, III, 199.

Eyre, S., and Stovall, W. D., antigenic

similarity of two strains of non-capsulated. methæmoglobin-producing organisms to type XXIX pneumococcus, III, 143.

Eyring, H. See Kauzmann, W., Laidler, K. J., Magee, J. L., Powell, R. E., Stearn, A. E., and Walter, J.

Eysenck, H. J., psychological aspects of colour measurements, III, 1000.

Eyster, E. E., Gillette, R. H., and Brookway, L. O., molecular structures of methyl isocyanate and cyanic acid by electron diffraction method; structural chemistry of cyanic acid and its derivatives, I, 247.

Eyster, E. H. See Burcik, E. J.

Ezell. B. D., and Gerhardt, F., use of ascorbic acid as substrate in oxidase measurements, III, 135.

F.

Faber, J. E., jun., and Black, L. A., comparison of surface tension measurements and hæmolytic activity of guinea-pig complement, III, 832.

Fabergé, A. C. See Beale, G. H.

Fabre, P., simple electric sphygmograph, III, 421.

Fabre, R., and Lem, F., determination of small quantities of lead in biological products, III, 64. See also Binet, L.

Fabrizio, M., and Charipper, H. A., morphogenesis of thymus gland of Rana sylvatica, 111, 412.

Fach, E., treatment of bronchiectasies and purulent bronchitis [by short-wave diathermy], III, 385.
Fader, D. E. See Tripoli, C. J.

Faerman, S. B. See Schpitalski, A. S.

Fahey, J.J., Fleischer, M., and Ross, C.P., geochemistry of quicksilver mineralisation, I, 62.

Fahmy, E. C., hyperemesis gravidarum, III, 196.

Fahrenhorst, E., and Hofmann, W., solubility of manganese in aluminium containing up to 2% of magnesium, I,

Fainschmidt, O. I., muscular work carried to fatigue without depletion of reserves of energy-providing substances, III, 851. Fairbanks, B. W. See Shields, J. B.

Fairbrother, F., electrolytic dissociation processes. III. Exchange of radiobromine between inorganic and organic bromides, I, 336.

Fairbrother, R. W., sulphonamides in cerebrospinal meningitis, III, 460.

See also Jones, H. B.

Fairburn, H. W., and Hawkes, H. E., jun., dolomite orientation in deformed rocks,

Fairchild, J. G., basic sulphates of iron and aluminium in analytical separations, I, 176.

Fairhall, L. T. Sec Neal, P. A.
Fairley, N. H., fate of extracorpuscular circulating hæmoglobin, 111,75. Hæmolytic hypochromic anæmia associated with post-malarian splenomegaly of Banti's type, III, 164. Methæmalbumin. I. Clinical aspects. II. Its synthesis, chemical behaviour, and experimental production in man monkeys, III, 725.

and Murgatroyd, F., recurrent black. water fever induced by quinine, III,

Fairman, H. D. See Bryant, J.

Fajans, K., molar volume, refraction, and interionic forces, I, 244. One-sided polarisation of ions in vapour molecules, I, 244. Polarisation of ions and lattice distances, I, 244. Incomplete dissociation in solutions of strong electrolytes, 1, 264.

Falconer, E. H. See Epstein, N. N., and Leonard, M. E.

Falk, K. G. Sec Lewis, J. M. Fall, P. H. See King, J. F.

Falla, S. T., explosion-blast and lungs, III,

Fan, C., creatine and creatinine metabolism in hypothyroidism, 111, 436.

and Chien, W. M., variations in composition of soya-bean milk, III, 454.

and Woo, T. T., muscular dysfunction in glycogen-storage disease, III, 341. Effect of vitamin-C on creatine and creatine metabolism, III, 598.

Woo, T. T., and Chu, F., metabolic studies on roasted soya-bean meal as

infant food, III, 371. Fancher, O. E. See Fosdick, L. S.

Fanconi, G., pathology of salt metabolism, III, 380.

Fankhauser, G., cell size, organ and body size in triploid newts (Triturus viridescens), III, 412.

and Moore, Caroline, cytological and experimental studies of polyspermy in Triturus viridescens. I. and II., Ill, 487.

Fankuehen, I., X-ray and crystallographic study of ribonuclease, III, 387.

See also Bernal, J. D., and Warren, B. E. Fano, U. See Demerec, M.

Fantl, P., and Anderson, C. M., breakdown of hexose monophosphates in liver pulp, III, 1041.

Anderson, C. M., and Nelson, J. F., glycogen breakdown in liver, III. 379. Fantus, B., and Richards, R. K., therapy of

barbiturate poisoning, III, 129. Steigmann, F., and Dyniewicz, J. M., influence of phenolphthalein on liver, III, 882. Absorption and elimination of phenolphthalein in normal and

pathological states, III, 912. Farangó, F. C., alum-precipitated toxoid in diphtheria, III, 52.

Farber, M., and Libby, W. F., effect of gravitational field on thermal diffusion separation method, I, 132.

Farber, S. See Shohl, A. T.

Fardon, J. C., Brotzge, G., Loeffler, M. K., and Breit, J., attraction fields in vitro, III, 242.

Farid, G., magnetic susceptibilities of halides, I, 367.

Farinacci, N. T., multimolecular solvolysis: catalysis of racemisation and hydrolysis of optically active a-phenylethyl halides by polyhalide metallic salts, I, 381.

Farkas, L., and Sandler, L., preparation of ortho-deuterium, I, 55.

Farmer, C.J. See Abt, A.F.

Farmer, E. II., and Morrison-Jones, C. R., mechanism of polymerisation. VI. Heat polymerisation of methyl sorbate, and constitution of dimeric products, II, 3.

Farmer, F. A. See Goss, G. C. L. Farmer, L., histamine treatment of allergic diseases, III, 614.

See also Wechsler, H. F.

Farnsworth, E. See Benaron, H. B. W. Farnsworth, H. E., and Winch, R. P., photo-electric work functions of (100) and (111) faces of silver single crystals and their contact potential difference, I, 139. Farquharson, J., paravertebral lumbar

anæsthesia in bovine species, III, 40.

Farr, L. E., significance of protein metabolism in nephrotic child, III, 365. Minimal nitrogen requirements of children with nephrotic syndrome, 111,

Emerson, K., jun., and Futcher, P. H., comparative nutritive efficiency of intravenous amino-acids and dietary protein in children with nephrotic | Fazio, C., and Mácola, B. A., phosphatase syndrome, III, 454.

Farr, L. E. See also Emerson, K., jun., and Robinson, F. H., jun.

Farrar, J. L. See Grace, N. H.
Farrer, K. T. H., determination of vitamin- $B_1$ , III, 374. Effect of  $p_H$  on destruction of aneurin at 100°, III, 776.

Fasciolo, J. C., Leloir, L. F., Muffioz, J. M., and Braun-Menéndez, E., hypertensinase: estimation and distribution, 111, 734. Determination of renin, III, 734. Specificity of renin, III, 845.

See also Braun Menéndez, E., and Leloir, L. F.

Fashena, G. J., and Stiff, H. A., saccharoid fraction of human blood. II. Identification of glycuronic acid, III, 331.

Fassler, B., Stokes-Adams syndrome in

infancy, III, 78.

Fastovski, V. G., and Gonikberg, M. G., solubility of gases in liquids at low temperatures and high pressures. III. Hydrogen in liquid methane, I, 80, 462.

See also Gonikberg, M. G.

Fatherree, T. J., and Hurst, C., thromboangiitis obliterans and acrosclerosis

(scleroderma), III, 977.

Fauley, G. B., Freeman, S., Ivy, A. C.,
Atkinson, A. J., and Wigodsky, H. S., aluminium phosphate and peptic ulcer, III, 678.

Faulkner, H. L. See Rosenbaum, H. A.

Faulkner, J. M. See Duncan, C. N. Faulkner, W. B., jun., objective esophageal changes due to psychic factors, III, 270. Fauvet, J. See Ameuille, P.

Favejee, J. C. L., quantitative X-ray study of soils, I, 232.

Favorite, G. O., and Cheever, F. S., Brown-Pearce carcinoma in roller-tube tissue cultures, III, 1027. Favorskaja, I. A. See Favorskaja, T. A.

Favorskaja, T. A., isomeric transformations of unsaturated halogen compounds of the aliphatic series. V. Reaction of dimethylacetylenylcarbinol with hydrobromic or hydriodic acid, II, 26.

and Favorskaja, I. A., isomeric transformations of unsaturated halogen compounds of the aliphatic series. IV. Action of hydrochloric acid on diethylacetylenylcarbinol in presence of ammonium chloride and cuprous or cupric chloride, II, 26.

and Zacharova, A. I., isomeric transformations of unsaturated halogen compounds of the aliphatic series. III. Action of hydrochloric acid on methylethylacetylenylcarbinol presence of ammonium chloride and cuprous chloride, II, 25.

Favorski, A. E., and Tichomolov, P. A., synthesis of asymmetrical allenic compounds of the aliphatic series by acetylenc-allene rearrangement, II, 281.

Fay, F. II., nitration of 3-halogeno-7benzanthrones, II, 45.

Fay, T., diagnosis and treatment of neuralgias of face and head, III, 859.

and Smith, Gerald IV., reflex responses during prolonged periods of human refrigeration, III, 664.

Fazekas, J. F., and Himwich, H. E., carbohydrate breakdown without glycolysis, III, 690.

See also Himwich, H. E., Libet, B., and Wortis, J.

determination in serum, III, 732.

Fearon, W. R., phonol amidine reaction: detection of guanidine, guanidine derivatives, and carbamide by thymol and hypochlorite, II, 326.

Feasley, C. F., and Gwynn, B. H. [with Degering, E. F., and Tetrault, P. A.], effect of ortho-substitution on bacteriostatic properties of phenylacetic acid, II, 195; III, 694.

Feather, N., y-radiations emitted in unclear processes, I, 143. Ionisation maximum for protons, I, 186.

Feder, I. A. See Lipschutz, E. W.

Fedorenko, N., soft component and decay of mesotrons at 3000 m., I, 235.

Fedorov, V. S. See Balandin, A. A. Fedorova, M. F., solubility of acetylene and carbon dioxide in liquid nitrogen and liquid oxygen, I, 462.

Fedotova, V. I. See Gorochovski, J. N. Feduchin, M. P., and Turkevitsch, N. M., action of cytotoxic antireticular serum on cancerolytic power of serum of cancerous patients, III, 889. Fedulov, M. F. See Voroshcov, N. N.

Feenberg, E., non-uniform particle density in nuclear structure, I, 289. Density and compressibility of nuclear matter. I, 318. Nuclear surface energy, I, 443.

See also Phillips, M.

Feeney, R. E. See Strong, F. M.

Fegler, J. See Chauchard, A.

Fehr, II., surgical antisepsis with merfen, III, 462.

Fehrer, H., and Taylor, H. S., two-component gel catalysts containing chromium oxide for aromatisation of n-heptane, I, 341.

See also Salley, D. J., Taylor, H. S., and Turkevich, J.

Feigelson, I. B., geochemical indications for the presence of borates, I, 351. Feigen, G.A. See Alles, G.A.

Feilschenfeld, M. See Bernfeld, K. Feiman, D. T., corpus luteum hormone and testosterone in treatment of menorrhagia, threatened abortion, and dysmenorrhœa, III, 872.

Fein, H. D., Ralli, E. P., and Jolliffe, N., peripheral neuropathy from vitamin- $B_1$ deficiency in diabetes mellitus, III, 373. Feinberg, B. See Buffum, W. P

Feinschmidt, O. I., Osinskaja, V. O., and Uschakova, A. S., variations due to age in active substances in muscle and their metabolism, III, 700.

Feinstein, R. N., and Stare, F. J., oxidation of native protein by glutathione-copper catalysis, III, 288. Thermostable oxidations in tumour and muscle tissue, III,

Feinstone, W. H., Williams, Ray D., Wolff, R. T., Huntington, E., and Crossley, M. I., toxicity, absorption, and chemotherapeutic activity of 2-sulphanilamidopyrimidine (sulphadiazine), III, 903.

Feistmann-Lutterbeck, E., changes in spinal column after tetanus, III, 546.

Feitknecht, W., oxidation with molecular oxygen. I., I, 421.

[with Bédert, W.], oxidation with molecular oxygen. II. Chemistry of autoxidation of blue and green basic Com compounds. III. Kinetics of autoxidation of protected blue cobalt hydroxide, I, 420, 425.

Fekete, A. Sec Kerpel-Fronius, E. Fekete, E. Sec Woolley, G.

Feldberg, W., bee venom, cobra venom, lysolecithin, and adrenal medulla, III, 263.

and Holmes, B., muscular contractions, curarine, and acid gastric secretion (cat), III, 737.

Keilin, D., and Mann, T., activity of carbonic anhydrase in relation to

gastric secretion, III, 103.

See also Chute, A. L.

Feldman, F. M., Risser, A. F., and Schwartz, E. R., Vollmer patch test and Mantoux test. III, 814.

Feldman, H., maintenance of sedimentation rate of erythrocytes in vitro in cases of malignant tumours and Hodgkin's disease, III, 325.

Feldman, H. B., and Powell, A. L., indicator properties of 8-hydroxyquinoline-5sulphonic acid and its derivatives, I,

Feldman, J., Cortell, R., and Gellhorn, E., [blood-sugar:] vago-insulin and sympathetico-adrenal systems; reaction to cocaine and bulbocapnine, III, 559.

and Gellhorn, E., influence of fever on vago-insulin and sympathetico-adrenal systems [action on blood-sugar], III, 731.

See also Gellhorn, E.

Feldman, J. B., treatment of squint, III,

Feldman, M., Roentgen sign of pyloric obstruction, III, 878.

See also Morrison, S., and Toybin, M. Feldman, W. H., Hinshaw, H. C., and Moses, H. E., effect of promin (sodium salt of pp'-diaminodiphenyl sulphone NN-glucosesulphonate) on experimental tuberculosis, III, 125.

Feldt, R. H., and Wenstrand, D. E. W., cold pressor and breath-holding test, III,

Felix, A., typhoid-paratyphoid vaccine, III, 476.

Rainsford, S. G., and Stokes, E. J., reaction to new T.A.B.C. vaccine, III,

Felke. See Lindemann. Fell, H. B., application of tissue culture in vitro to embryology, III, 67. Animal behaviour during air raids, III, 856.

Feller, A. E., Enders, J. F., and Weller, T. H., prolonged coexistence of vaccinia virus in high titre and living cells in roller-tube cultures of chick embryonic tissues, III, 478.

Fellers, C. R. See Lubitz, J. A.

Fellows, E. J., and Livingstone, A. E., circulatory action, after atropine, of furfurylammonium iodides and of acetylβ-methylcholine (mecholyl), III, 463.

Fels, E., influence of ligature of ovaries on genital tract and hypophysis, III, 762. and Diaz, L. M., lutein tissue and bisexual hormone, III, 358.

Fels, S. S. See Shay, H. Felsher, I. M., and Jones, K. K., prevention of bismuth gingivitis by use of sodium hexametaphosphate, III, 789. Felsing, W. A. See Kelso, E. A., and

Watson, George M.

Felton, L. D., Cameron, W. R., and Prather, P. F., effect of variation in dosage of antigenic polysaccharide on serum antibody titre in human beings, III, 803.

Feng, S. K., and Band, W., statistical theory of duplex films, I, 110. See also Ch'eng, C.

g, T. P., neuro-museular junction. XVIII. Local potentials around neuromuscular junctions induced by single and multiple volleys, III, 428.

and Li, T. H., cross-excitation between mammalian medullated nerve fibres after treatment with veratrine. Ill, 341. Neuro-muscular junction. XXIII. Eserine potentiation and post-tetanic facilitation in mammalian muscles, III, 737.

See also Dun, F. T.

Fenger, M., gastroscopic observation of pyloric function, III, 511. Fenn, G. K. See Gilbert, N. C.

Fenn, W. O., and Haege, L. F., deposition of glycogen with water in cat's liver, III, 107.

Koenemann, R. H., and Sheridan, E. T., potassium exchange of perfused frog muscle during asphyxia, III, 86. See also Dean, R. B.

Fennel, E. A., Tanaka, M., and Serizawa, S., convenient laboratory devices, III, 715.

Fenner, C. N., nature of ore-forming

fluid, I, 135. Feofilaktov, V. V. [with Bogdanova, L. A., and Onisehtschenko, A. S.], action of diazobenzene on alkylacetoacetic

ester as method of preparing a-aminoacids and phenylhydrazones of a-keto-acids. I. Synthesis of isoleucine and leucine, II. 5.

and Vinogradova, E., action of diazo-benzene on alkylacetoacetic ester as method of preparing a-amino-acids and phenylhydrazones of a-keto-acids. II. Synthesis of phenylalanine. IV. Synthesis of the phenylhydrazone of phenylpyruvic acid, II, 12.

and Zaitzeva, V. N., action of diazobenzene on alkylacetoacetic ester as method of preparing α-amino-acids and phenylhydrazones of α-keto-acids. III. Synthesis of alanine. thesis of valine, II, 5, 282.

Ferderber, M. B., clinical and physiological investigation of air conditioning, III,

791.

and Houghten, F. C., effective temperature scale [sensation], III, 659. Ferdman, D. L., and Dvornikova, P. D.,

chemical composition of brain, III, 744. Ferguson, A., measurement of contact angles, I, 365. and Irons, E. J., surface energy and

surface entropy, I, 152.

Ferguson, A. J., and Walker, L. R., scattering of a-particles by carbon and oxygen, I, 24.

Ferguson, E. G., Bergman, Klaproth, Vauquelin, and Wollaston, I, 180, 224.

Ferguson, J. H., blood-clotting anomalies in hæmorrhagic diseases, III, 166. Low-temperature preservation of gross specimens, III, 235. Stability of prothrombin in presence of thrombin, III, 556. Heparin, III, 835. Action of heparin, serum-albumin (crystalline), and salmine on blood-clotting mechanisms (in vitro), III, 836.

See also Eriekson, B. N., Glazko, A. J., and Reifenstein, G. H.

Ferguson, J. K. W. See Bonnycastle, D. D. Ferguson, L. K. See Elsom, K. A. Ferguson, L. W. See Stone, C. P.

Ferguson, M., anæmia in college women, III, 828.

Ferguson, R. L. See Adler, H. F.

Ferguson, R. P. Sce Laubengayer, A. W. Fermi, E., reactions produced by neutrons in heavy elements, I, 23.

and Segre, E., fission of uranium by a-particles, I, 288.

See also Anderson, H. L.

Fernbach, J. von, and Szandányi, Z., tetanoid epilepsy diagnosed by electrocardiogram, III, 867.

Fernholz, E., and MacPhillamy, H. B., isolation of a new phytosterol,

campesterol, II, 194.

and Ruigh, W. L., preparation of 22:23dihydro-stigmasterol and -brassicasterol, II, 97. Constitution of campesterol, II, 194.

Fernholz, M. E. See Lettré, H.

Ferrari, O., isomerisation of normal butane by action of aluminium chloride, II, 209. Ferraro, A., and Jervis, G. A., experimental lipoidoses. I. Phosphatides, III, 122.

Ferrebee, J. W., effect of adrenalectomy on phosphorylation of vitamin- $B_1$  and  $\hat{B}_2$ , İII, Ž84.

and Carden, G. A., determination of vitamin-B in urine, III, 116.

Klingman, W. O., and Frantz, A. M., vitamin-E and  $-B_0$  in muscular dystrophy and amyotrophic lateral

sclerosis, III, 739.

Leigh, O. C., and Berliner, R. W., passage of blue dye T-1824 from blood-stream into lymph, III, 837.

See also Carden, G. A., and Carnes, IV. H. Ferree, C. E., and Rand, G., pilot fitness, a safety factor in aviation, III, 90.

Ferreira, A. E. M., relation of macro-nucleolus and nucleonucleolar ratio of cancer to histologic grading, III, 1029.

Ferretti, B. See Bernardini, G. Ferris, A. A. See Belt, T. H.

Ferry, J. D., mechanical properties of substances of high mol. wt. I. Photoelastic method for study of transverse vibrations in gels, I, 260. Fibrous protein from slime of hagfish, III, 515.

and Oncley, J. L., dielectric properties of protein solutions. III. Lactoglobulin, Ĩ, 166.

See also Cohn, E. J.

Fersman, A. E., geochemical complexes, I, 181.

Fetisenko, I. V. See Martinson, E. E. Fetter, F., and Schnabel, T. G., blood sedimentation rate during and after

fever therapy, III, 325.

Fetterman, G. H., and Moran, T. J., anomalies of circle of Willis in relation to cerebral softening, III, 976.

See also Moran, T. J.

Fetters, K. L., and Chapman, J., equilibria of liquid iron and slags of system CaO-MgO-FcO-SiO<sub>2</sub>, I, 300.

Fevold, H. L., synergism of follicle-stimulating and luteinising hormones in producing æstrogen secretion, III, 267.

Feyel, T., migration of lipins in striated muscle at rest and during activity, III, 850.

Fialkov, J. A., electrical conductivity of iodine bromide at various temper-atures, I, 247. Physico-chemical study of systems iodine chloride + metal halides and iodine bromide + metal halides, I, 252.

and Gengrinovitsch, A. I., effect of a mixture of alcoholic solutions of iodine and silver nitrate on phenols,

II, 248.

Fialkov, J. A., and Polischtschuk, A. B., preparation of potassium polyiodide from system potassium iodide-iodinebenzene, I, 266.

and Schargorodski, S. D., thermal decomposition of alkali sulphates in

presence of silica, I, 383.

Fichter, F., and Petrovitch, A., electrosynthesis of dicyclohexyl, II, 125.
Electrochemical experiments with maleic acid, II, 211. Electrolysis of salts of hexahydrobenzoic acid with nitrates, II, 224.

Sec also Jorissen, W. P.

Field, H., jun., and Melnick, D., clinical laboratory determination of vitamin nutrition, III, 208.

Melnick, D., Robinson, W. D., and Wilkinson, C. F., jun., chemical diagnosis of pellagra (nicotinic acid deficiency), III, 1036. See also Melnick, D.

Field, J., jun. See Grimson, J. M. Field, J. W., staining malarial parasites in thick blood smears, III, 169, 958. Morphology of malarial parasites in thick blood films, III, 929.

Fieldman, J. See Gellhorn, E.

Fields, I. A. See Edmondson, H. A.
Fierst, S. M. See Abramson, D. I.
Fierz-David, H. E., and Rutishauser, M.,
composition and constitution of Turkey-red, II, 49.

See also Jadassohn, W.

Fies, H. L. See Langner, P. H., jun. Fieser, L. F., and Clapp, R. C., synthesis 10-methyl-3'-isopropyl-1:2-benzof anthracene from 9:10-dihydroretene, II, 127.

and Daudt, W. H., syntheses in phenanthrene and triphenylene series, II, 190.

Gates, M. D., jun., and Kilmer, G. W., quinonyl derivatives of fatty acids, II,

Tishler, M., and Sampson, W. L., vitamin-K activity and structure, III,

Tishler, M., and Wendler, N. L., extensions of vitamin- $K_1$  synthesis, II, 18. Hydro-, oxido-, and other derivatives of vitamin- $K_1$  and related compounds,

and Wolfe, J. K., sterols. CXXII. Origin of dehydroisoandrosterone in urine, II, 257.

See also Cason, J., Fry, E. M., Hershberg, E. B., Long, L., jun., Sandin, R. B., Wolfe, J. K., and Wood,

J. L. Fife, J. G., internal electrolysis. VI. Determination of small quantities of cobalt in presence of zinc, I, 347.

Figge, F. H. J., effect of glutathione on tyrosinase and significance of "dopa" reaction, III, 795.

Figurovski, N. A., and Rozanova, V. N., scdimentometric study of coarse disperse systems; aqueous suspensions of barium sulphate in presence of electrolytes, I, 411.

Filanovski, M. S. See Bogdanov, O. S. Filatov, V. P., and Kaschuk, M. E., rôle of ophthalmology in diagnosis of hypertension, III, 863.

Fildes, P., indole as precursor in synthesis of tryptophan by bacteria, III, 307. Filippenko, I. A., inhibition of develop-

ment in vernalised plants by anaërobiosis, III, 398.

Filippov, A., Shdanov, A. P., and Gurevitsch, I., disintegration of atomic nuclei by cosmic rays, I, 145. See also Seidel, A.

Filippov, V. See Suchorukov, K.
Filippova, N. S., Tartakovski, I. S., and
Mansheley, M. E., refractive indices and densities of aqueous-alcoholic electrolyte solutions, I, 331.
Findlay, G. M., action of sulphanilamide

on virus of lymphogranuloma vener-eum, III, 292. Chemotherapy of lymphogranuloma venereum,

and MacCallum, F. O., culture of yellowfever virus in vitro, III, 55.

Findlay, W. P. K., physiology of wood-destroying fungi. III., III, 234.

Findley, T., and White, Harvey L., measurement of diodrast and inulin clearances in man after subcutaneous administration, III, 274.

Fine, J., Rosenfeld, L., and Gendel, S., rôle of nervous system in acute intestinal obstruction, III, 105.

See also Gendel, S., and Kapnick, I.

Fine, M., homotransplantation of preserved cornea, III, 10.

Fineman, A. H., hereditary angioneurotic œdema, III, 422.

and Bair, G., evaluation of tuberculin patch test, III, 231.

Fink, H. L. See Aston, V. G. Fink, L. D. See Holck, H. G. O. Finkel, A. J., and Allee, W. C., effect of

traces of tin on rate of growth of goldfish, III, 917.

Finkelstein, B. See Lanford, C. S.

Finkelstein, H. See Sharp, D. G., and Taylor, A. R.

Finkelstein, J. See Major, R. T.
Finkelstein, R., Lipschutz, E. W., and
Hill, J. M., comparison of newer liver function tests, III, 583. and Van Vleek, J. H., energy levels of

chrome alum, I, 1.

Finkle, I. J. See Koser, S. A.
Finland, M., Lowell, F. C., and Strauss, E.,
susceptibility of pneumococci, to sulphapyridine, sulphathiazole, and sulphamethylthiazole, III, 607. Treatment of pneumocoecic pneumonias with sulphapyridine and sulphathiazole, and serum; analysis of results of specific therapy at Boston City Hospital from July, 1939, through June, 1940, III, 608.

Strauss, E., and Peterson, O. L., sulphadiazine, III, 1045.

See also Kennedy, P. C., Peterson, O. L., and Strauss, E.

Finlayson, A. I., and Latta, J. S., early reaction in leptomeninges of rabbit to trypan-blue, III, 158.

See also Best, R. R., and MacQuiddy,

Finley, C. B., equivalent losses in accuracy of response after central and after peripheral sense deprivation, III, 505.

Finn, M., splenectomy in purpura hæmorrhagica, III, 834.

Finn, S. B., and Kramer, Morton, effect of fluorine on life span of rachitic rats, III, 376.

See also Morgareidge, K. Finn, S. R. See Baker, A. H.

Finnegan, J. K. See Gnrchot, C. Finsterwalder, N. J., mixture of bakelite and metal powder for mounting microspecimens, I, 180.

Firor, W. M., Lamont, A., and Shumacker, H. B., jun., cause of death in tetanus, 111, 144.

See also Lamont, A., and Shumacker,

H. B., jun.

Firor, W. W., treatment of Addison's disease by implantation of synthetic hormone, III, 95.

Fischer, A. E., Stillerman, M., and Marks, H. H., relation of tonsillectomy and adenoidectomy to incidence of poliomyelitis, with special reference to bulbar form, III, 808.

Fischer, F. P., formation of melanoidin in lens, Ill, 864.

Fischer, H., potassium migration from red cells in stored blood, III, 959.

and Schürch, O., oxygen carriage of stored blood, 111, 980.

Fischer, Hans, and Deilmann, K. O., porphyrins. XLIV. Conversion of hæmin into deuteroporphyrin-2:4-dicarboxylic acid tetramethyl ester and of hæmatoporphyrin into diacetyldeuteroporphyrin, II, 380.

Fischer, Hellmut, and Leopoldi, G., determination of small quantities of lead by means of dithizone, I, 428.

Fischer, H. O. L. Sec Baer, E., and Grosheintz, J. M.

Fischer, L. See Miller, O. H., and Smyth, H. F., jun.

Fischer, M., cerebrospinal fluid-sugar and blood-sugar during insulin coma in schizophrenics, III, 997.

Fischer, P. Z., action of non-electrolytes [on electrolytes], I, 36. Cryoscopic study of solutions of electrolytes in presence of non-electrolytes, 1, 47. Conductivity of mixtures of zinc oxide, chromium oxide, and copper, I, 49.

and Koval, T. E., effect of non-electrolytes on hydrogen over-potential, and transport number, I, 49.

Fischer,  $\hat{R}$ . See Jeanneret, H.

Fischer, V., condensation of vapour mixtures containing any number of constituents, I, 48.

Fischer, W., diseases of urinary passages in children, III, 364.

Fish, C. A. See Dohan, F. C. Fish, W. R., and Dorfman, R. I., metabolism of steroid hormones. I. Conversion of a-æstradiol into æstrone by guinea-pig, III, 784.

Young, IV. C., and Dorfman, R. I., excretion of estrogenic and androgenic substances by female and male chimpanzees with known mating behaviour records, III, 577.

Fisher, A. A., treatment of herpes simplex with moccasin snake venom, III, 698.

Fisher, A. M. See Scott, D. A.

Fisher, E., and Bower, R. S., action of organic nitrogen bases on cornstalk lignin, II, 329.

Fisher, I., brucellosis [and its treatment]. III, 907.

Fisher, J. A. See Young, J. S.

Fisher, L. H. See Stout, J. W. Fisher, R. B. See Barnett, S. A., and

Davenport, H. W.

Fisher, R. S., and Apperly, F. L., meat extractives [well-being] and gastric function, III, 444.

and Peabody, W. A., ferrous and ferric iron in liver extract, III, 768.

Fisher, S., and Van Gelder, D. W., intradermal immunisation in scarlet fever, III, 394.

Fisher, S. See also Franks, A. G. Fishman, M. M. See Dean, R. B. Fishman, W. H., a-glucuronidase.

Increase in β-glueuronidase activity of mammalian tissues induced by feeding glucuronidogenie substances, III, 138.

Fisk, R. T., agglutinin content of antimeningococcus sera for freshly isolated strains of meningococci, III, 474.

and Blakely, L., mouse-protection-test potency of antimeningocoecus sera and sulphanilamide for meningococci, III, 474.

Fitelson, J. See West, W. Fitz, R. See Walker, B. S.

Fitzgerald, G. See Curtin, T. Fitzgerald, J. E. See Wilson, Earle A. Fitzgerald, P. A., defective development of cerebral cortex involving symmetrical bilateral areas, III, 662.

Fitzhugh, O. G., and Meiller, F. H., chronic toxicity of cadmium, III, 917. See also Robbins, B. R

Fitzpatrick, R. E., inexpensive lamp for the dissecting and research microscope, III, 958.

Flagg, J., and Koenig, P., local sulphathiazole application in gynæcology, III, 1046. Flagg,  $\hat{J}$ . F., non-exchange of cobalt in

complex salts, 1, 217. and Wiig, E. O., tracer isotopes in analytical chemistry, I, 385. See also Furman, N. H.

Flanagan,  $E.\ D.$  See Meyer,  $L.\ M.$  Flaum-Fehér, G. See Pollak, L.

Fleet, G., and Ackman, D., intra-abdominal hæmorrhage, III, 965.

Fleischer, M., and Ksanda, C. J., dehydration of pollucite, I, 182.

See also Fahey, J.J.Fleischhacker, H. See Jagić, N. von.

Fleischmann, W., creatine-creatinine excretion in neuromuscular diseases treated with a-tocopheroland with testosterone, III, 565.

See also Wilkins, L.

Fleisher, M. S., and Rich, G. T., changes in number of circulating leucocytes in relation to spontaneous recovery from pnuemococcal infection, III, 165.

Fleming, Alexander, effect of antiseptics on wounds, Ill, 126. Nigrosin in bacteriology, III, 1065.

Fleming, (Sir) Ambrose, electrification of powdered insulators, I, 32.

Fleming, G. See Benjamin, B.

Fleming, G. H. See Whitmore, F. C. Fleming, (Miss) G. M., and Henderson,

J. E., energy losses attending thermionic and field emission, I, 139, 312.

Fleming, G. W. T. H. See Hutton, E. L. Fleming, J. G. See Bryant, R. D. Flemming, C., combination of burns and

wounds, III, 222.

Flemming, W. L., and Moore, J. E., human constitution and syphilitic infection, III, 1071.

Flerov, G. N. See Rusinov, L. I.

Fletcher, C. M., sulphapyridine and heparin in subacute bacterial endocarditis, III, 245. Heparin in subacute bacterial endocarditis, III, 611.

See also Abraham, E. P.Fletcher, F. R., fatal anuria following sulphapyridine in pneumonia, III, 611. Fletcher, J. H. See Cairns, T. L.

Flexner, J., Bruger, M., and Wright, I. S., effect of thiamin hydrochloride and ascorbic acid on experimental arterosclerosis in rabbits, III, 337.

Flexner, J., and Chassin, M. R., clinical studies on pyridoxine (vitamin-Ba), III, 1036.

and Kniazuk, M., method for continuous recording of gastric  $p_{\rm H}$  in situ. III. Evaluation of efficacy of antacids, III,

See also Ludden, J. B.

Flexner, L. B., and Pohl, H. A., transfer of radioactive sodium across placenta of rat, III, 875.

See also Pohl, H. A.

Flinker, R., relation between pellagra and vitamins, III, 519.

Flinn, F. B., blood-bromide after oral ingestion, III, 917.

and Geary, J. M., feeding tests with

thiourea, III, 131.

Flinn, R. H., Hough, J. W., and Neal, P. A., hazard of mercury vapour in scientific laboratories. II. Medical ex-

amination of 38 workers, III, 791.

Flint, E. P., McMurdie, II. F., and Wells, L. S., hydrothermal and X-ray studies of garnet-hydrogarnet series and relationship of series to hydration

products of Portland cement, I, 216.

Flippin, H. F., Reinhold, J. G., and
Schwartz, Leon, sulphapyridine and sulphathiazole in pneumococcal pneu-

monia, III, 608.

Rose, S. B., Schwartz, Leon, Domm, A. H., and Doak, B., sulphadiazine and sulphathiazole in treatment of pneumococcie pneumonia, III, 1045.

Schwartz, Leon, and Clark, J. H., fatality rate of pneumococcic pneumonia treated with sulphonamide com-pounds, III, 1044.

See also Reinhold, J. G., and Schwartz, Leon.

Flock, E. V., and Bollman, J. L., resynthesis of muscle-glycogen after exercise, II<u>I</u>, 122.

Floe, C. F., and Chipman, J., solubility of sulphur dioxide in molten copper, I, 409.

Floody, R.J. See Knudson, A.

Florentin, P., and Binder, C., effect of X-irradiation on human bone marrow, III, 243. Experimental production of leucocytes with Kurloff bodies in guinea-pig, III, 244.
and Wolff, R., effect of thyrotropic

hormone on pancreas, III, 266.
Florey, H. W. See Abraham, E. P.,
Chain, E., Jennings, M. A., Sanders,
A. G., and Wright, R. D.

Florinski, F. S. See Koton, M. M. Florkin, M., and Frappez, G., blood-ammonia in arthropods, III, 167. See also Duchateau, Q.

Flory, C. M., production of tumours by tobacco tars, III, 886.

See also Carpenter, G.

Flory, P. J., and Stickney, P. B., viscosities of polyester solutions and Staudinger equation, I, 260.

Flosdorf, E. W., synthesis of plastein, III, 796.

Stokes, F. J., and Mudd, S., Desivac process for drying [of blood plasma] from frozen state, 111, 245.

See also Boerner, F. Flügge, S., exchange energy in quantum

mechanics, I, 443.
Fluhmann, C. F., gonadotropic and augmentative effects of testosterone propionate in immature female rats. III, 353. Ovarian dysfunctions and their treatment, III, 673.

Flusser, B. See De Beer, E. J.

Foa, P. P., List, C. F., and Peet, M. M., possibility of producing hypertension by intracisternal injection of kaolin, III,

Fochim, K. See Sugarman, H.

Fock, V. A., and Kolpinski, V. A., diffraction of waves from a curved lattice, I, 453.

Focke, A. B. See Milligan, W. O.

Földes, E., is rickets due simply to vitamin deficiency? III, 28.

Földes, F., determining specific gravity of blood and body fluids, III, 729.

and Vajda, G., vitamin-A and gastric sceretion, III, 444.

Foerster, O., Gagel, O., and Mahoney, W., and mesencephalic bulbar, pontine, tumours, III, 986. Foeyn, E. See Petterson, H.

Foged, J., ossification of uterine tubes, III,

Fogel, D. H. See Martin, D. W.

Fogel, M., treatment of pneumonia with sulphapyridine, III, 526.

Fogelson, S. J. See Slive, A.

Foggie, P., acetylcholine action on pulmonary vascular bed of the dog and its modification by adrenaline and ergotoxine, III, 80. See also Daly, I. de B.

Foggie, W. E., myxædema after removal of

lingual thyroid, III, 1002.

Foglia, V. G., growth and diabetogenic activity in mammals produced by principal lobe of toad hypophysis, III, 187. Thyrotropic action of hypophysis of Bufo arenarum on birds and mammals, III, 266. Phloridzin diabetes in dogs after removal of adrenal medulla, III, 754. Action of hypophysis of Bufo arenarum on pigeon's crop, III, 758. Action of hypophysis of B. arenarum on adrenals, thymus, and spleen of mammals, III, 758. Gonadotropic action of hypophysis of Bufo arenarum in mammals, III, 759. Cause of death of toads after destruction of their lymph hearts, III, 843.

and Gerschman, R., symptoms and mineral alterations following extirpation of adrenal medulla, III, 185.

and Moglia, J. L., effect of hypertensin on sugar and potassium in plasma, III,

See also Houssay, B. A.

Foleh, J., phosphatidyl serine from brainkephalin, III, 743.

and Schneider, H. A., amino-acid constituent of ox brain kephalin, III, 343.

See also Van Slyke, D. D. Foley, H. M., and Randall, H. M., fine structure in far infra-red spectrum of ammonia, I, 319.

Foley, J. A., and Yasuna, E. R., sulphanilamide in crysipelas, 111, 291.

Foley, M. See Burnet, F. M.

Foley, M. A. See Alvarez, W. C. Folinsbee, R. E., chemical composition of garnet associated with cordierite, I, 354.

Folkers, K. See Harris, S. A.

Folkins, H. O. See Thacker, C. M. Folley, S. J., lactation, III, 99. (Estrogens and lactation, III, 356. Parathyroid glands and lactation in rat, III, 867.

and Bottomley, A. C., teat growth in immature female goats, III, 763.

Dyer, F. J., and Coward, K. H., assay of prolactin by the pigeon crop-gland response, III, 266. Folley, S. J., and Young, F. G., continued treatment of lactating cows with anterior pituitary extracts, III, 266. Prolactin as specific lactogenic hormone, III, 439.

See also Allcroft, W. M., Blair, G. W. S.,

and Wagenen, G. van.

Follis, R. H., jun., Day, H. G., and McCollum, E. V., histology of tissues of rats fed a diet extremely low in phosphorus, III, 22.

See also Day, H. G.

Foltz, V. D., and Bushnell, L. D., growth of important organisms on new standard milk agar, III, 476.

See also Leasure, E. E.

Fomin, S. V., origin of trimethylamine in urine of man and animals, III, 1021.

Fonda, G. R., yellow and red zinc silicate phosphors, I, 28. Constitution of zinc beryllium silicate phosphors, I, 149.

Fontaine, T. D. See Olcott, H. S.

Fontana, B. J., and Stewart, T. D., effect of carbonyl derivatives as impurities in alcohols, II, 56.

See also Stewart, T. D.

Fontana, C. M. See Russell, A. S. Fontell, N., differential calorimeter, I, 430.

Foot, A. S. See Braude, R.Foot, N. C., histology of tumours of peripheral nerves, III, 114.

Foote, F., and Jette, E. R., X-ray study of solid solubility of lead, bismuth, and gold in magnesium, I, 164.

Forbes, A. See Brücke, E. T. von.

Forbes, E. B., Black, A., Thacker, E. J., and Swift, R. W., plane of intake of beef muscle protein as affecting energy and nitrogen metabolism of mature albino rats, III, 21.

Forbes, G. S., water, I, 216. See also Cline, J. E.

Forbes, H. S. See Sohler, T. P.

Forbes, J. C., Leach, B. E., and Outhouse, E. L., fat metabolism and susceptibility to carbon tetrachloride, III, 899.

See also Outhouse, E. L. Forbes, T. R., reproductive system of alligator. IV. Development of gonad, adrenal cortex, and Mullerian duct, III, 412. Urogenital anatomy of adult male lizard, Scleroporus, and action of implanted pellets of testosterone and of estrone, III, 670. Absorption of [hor-

mone] pellets in rat, III, 760. Forbes, W. H., and Consolazio, F., leucopenia in negro workmen, III, 491.

Dill, D. B., and Hall, F. G., effect of climate on volume of blood and tissue fluid in man, III, 830.

See also McFarland, R.A.

Ford, C. B. See Heimann, H. Ford, M. L., Petersilge, C. L., Young, A. F., and Wiggers, C. J., effect of acute anoxia on conomy of effort index in man, III, 656.

Ford, N., Brown, A., and McCreary, J. F., monozygosity and disturbance of growth in twins with pyloric stenosis, III, 410.

Ross, M. A., and Brown, A., primogeniture as ætiologic factor in pyloric stenosis, III, 679.

Ford, W. L. See Gucker, F. F., jun. Forde, J. D. See Boyd, E. M.

Foreman, E. L., and Miller, C. O., synthetic œstrogenic substances. II. Hexœstrol and its esters, II, 359.

Fordham, S., electron diffraction intensities,

Forkner, C. E. See Muschenheim, C. Forman, L. V., action of ultra-violet light on lignin, II, 172.

Forman, S. E. See Krantz, J. C., jun.

Formanek, R., result of crossing of schizophrenia and secondary delirium, III, 995. Formijne, P., extrinsic factor and Castle reaction, III, 490.

Fornaroli, P., and Boni, I., muscle- and brain-glycogen in rats suffering from avitaminosis-B<sub>1</sub>, III, 24.

Sec also De Caro, L.

Forrester, G. C. See Jetter, W. J. Forrester, G. R. See Palmer, L. S.

Forró, M. See Barnóthy, J.

Forssberg, A., irradiating Drosophila eggs with X-rays and γ-rays in magnetic field,

Forssell, P., colostrum globules, III, 360. Forster, E., treatment of peritonitis and

paralytic ileus with vitamin- $B_1$ , III, 363. Forster, R. P., renal clearance analysis of phenol-red elimination in frog, III, 16.

Forsyth, J. S. A., reaction of free methyl radicals with nitric oxide, I, 339.

Forsythe, J. R. See Thomas, J. W. Forsythe, W. E., optical pyrometry, I, 177.

Forsythe, W. R. See Meads, P. F.

Fortess, F. E. See Freed, S. Fortunatov, N. S. See Plotnikov, V. A. Fortunatova, K. R., nutrition of Scorpaena

porcus, L., III, 455.

Fosdick, L. S., and Calandra, J. C., normal and alkaline esters of m-aminomandelic acid and related compounds, II, 195.

and Campaigne, E. E., alkamine esters of p-fluorobenzoic acid and their salts, II, 195.

and Fancher, O. E., normal and alkamine esters of 4-methoxy isophthalic acid, II,

and Starke, A. C., jun., alkamine esters of 4-acetylferulic and 3:4-dimethoxyeinnamic acid, II, 98.

See also Campaigne, E. E.

Foshag, W. F., Shallowater [Lubbock Co., Texas] meteorite: a new aubrite, I, 226. Sodium bicarbonate (nahcolite) from Scarles Lake, California, I, 231. Meteorites, I, 434.

Foster, A. See Merritt, H. H.

Foster, A. C., and Tatman, E. C., effect of environmental factors on transpiration and growth of tomato plants, III, 817.

Foster, C., Jones, J. H., Russell, D., and Dorfman, F., laboratory method for soilless growth of grass, III, 634. See also Church, C. F.

Foster, D. G., organic selenium compounds; nitration of phenyl alkyl selenides and reduction [of the products] to amines, II, 274.

Foster, E. G. See Baumann, C. A.

Foster, E. W., production, properties, and applications to micro-analysis of arcs possessing large-area anode spots, I, 390. Foster, F. I. See Di Palma, J. R., and

Reynolds, S. R. M. Foster, J. S., spectrographic analysis, I,

Foster, J. W., rôlo of organic substrates

in photosynthesis of purple bacteria, III, 708.

See also Carson, S. F.

Foster, L. M., and Payne, J. H., relation between the oxidising action and catalytic decomposition of concentrated hydrogen peroxide. I. Osmium tetroxide as a catalyst in the oxidation of acetic and propionic acids, I, 120.

Foster, R. H. K., pharmacological observations on tetrasodium 2-methyl-1:4naphthaquinol diphosphate, III, 697. See also Lee, J.

Foster, S. See Biguria, F.

Foster, W. C. See McClendon, J. F. Foulke, D. G., and Schneider, F., microtechnique of organic qualitative analysis; group tests for compounds of carbon, hydrogen, and oxygen, II, 56.

Fournie, G. See Sedallian, P.
Fournier, J. See Raynal, J. H.
Fournier, J. C. M., Cervino, J. M., and
Conti, O., treatment of vitiligo by local injections of melanophore hormone, III, 439.

Conti, O., and Laborde, J. C., electrical conveyance of melanophore hormone,

III, 574.

Fourt,  $\dot{P}$ . See Smith, B., jun.

Fousek, M. D. Sec Boisvert, P. L.

Foust, H. L., inherited eye defect in guineapig, III, 10.

Fonts, P. J., Corcoran, A. C., and Page, I. H., clinical and functional course of nephrotoxic nephritis in dogs, III, 514. Fowkes, F. M., and Harkins, W. D.,

state of monolayers adsorbed at interface solid-aqueous solution, I, 109.

Fowkes, F. S., and McClelland, E. W., dismutation of disulphides. IV., II, 173. Fowler, A. R., and Hunt, H., system nitromethane-n-propyl alcohol-water; vapour-liquid equilibria in ternary and

three binary systems, I, 169. Fowler, C. A., jun., absorption spectra of alkaline-earth fluorides, 1, 290.

Fowler, E. P., jun., bacteriology of acute otitis media and its course under new

and old methods of treatment, III, 670. Fowler, G. R., general anæsthesia in large animals, III, 40. Intravenous anæsthesia in large animals, III, 1051.

Fowler, R. D. See Brown, Harrison, and Mitchell, J.J.

Fowler, R. C. See Koskoski, W.

Fowler, W. A. See Lauritsen, T., and Streib, J. F.

Fowler, W. M., acquired hæmolytic icterus, III, 962.

and Barer, A. P., iron metabolism and its relationship to anæmia and therapy, III, 163. Effects of iron on hæmoglobin formation, III, 643. Effect of copper and iron on hæmoglobin regeneration, III, 644.

See also Barer, A. P., and January, L. E. Fox, D. L., and Anderson, L. J., pigments

from marine muds, I, 487. and Pantin, C. F. A., colours of plumose anemone, Metridium senile, L., III. 405.

Fox, F. E. See Hutton, E. L. Fox, F. W., significance of vitamin chemistry, III, 455. South Africa and nutrition, III, 516. Ascorbic acid and human nutrition. I., III, 521.

and Dangerfield, L. F., ascorbic acid and human nutrition. II. Scurvy and requirements of native mine labourers for antiscorbutic vitamin, III, 521.

Dangerfield, L. F., Gottlich, S. F., and Jokl, E., vitamin-C requirements in Bantus, III, 118.

Fox, G. W., and Bailey, F. M., measurement of cathode emission by use of electron microscope, I, 312.

and McCoy, D. O., breakdown potentials of gases under alternating voltages, I, 185.

Fox, H. J. See Strauss, M. B.

Fox, J. T., epileptics in air raids, III, 665. Fox, M. S., and Sweet, S. J., brittle bones associated with deafness and blue scleras, III, 10.

Fox, R. K., Swinehart, D. F., and Garrett, A. B., equilibria of manganese hydroxide, Mn(OH)<sub>2</sub>, in solutions of hydrochloric acid and sodium hydroxide, I, 416.

Fox, S. W., Dunn, M. S., and Stoddard, M. P., synthesis of dl-citrulline from non-biological precursors, II, 244. See also Huffman, H. M.

Fox, T. A. See Perlman, L.
Fox, W. W. See Rhoads, P. S., and
Winters, W. L.

Foz, O. R., an aspect of materialisation of energy according to Dirac's theory, I, 290. Property  $(\delta u/\delta v)_T = 0$  of perfect gases, second law of thermodynamics, and fundamental hypothesis underlying kinetico-statistics, I, 292.

Fraenkel, G., and Blewett, M., deficiency of riboflavin in white flour, III, 893.

Reid, J. A., and Blewett, M., sterol requirements of larva of the beetle, Dermestes vulpinus, Fabr., III, 890.

Fraenkel, L., Martins, T., and Mello, R. F. pregnancy of viviparous snakes, III, 99.

Fraenkel-Conrat, H. L., Li, C. H., Simpson, M. E., and Evans, H. M., interstitial cell-stimulating hormone. I. Biological properties, III, 98.

Simpson, M. E., and Evans, H. M., interstitial cell-stimulating hormone. III. Determining hormonal content of pituitaries, III, 98. Purification of follicle-stimulating [anterior pituitary] hormone, III, 267

See also Simpson, M. E.

Frahm-Leliveld, J. A., triple stain method for mycorrhiza in root cells, III, 712.

Frampton, V.L. See Sumner, J.B. France, R. See Thomas, C.B. France, W.G., and Lang, E.R., reflecting mirror optical system for ultracentrifuges, I, 130.

and Wolfe, K. M., adsorption at crystal-solution interfaces. XI. Adsorption of isomeric monoazo-dyes by crystals of sodium nitrate, sodium bromate, and sodium chlorate during their growth from solution, I, 206.

See also Myers, W. G. Francheschetti, A., and Bischler, V., significance of accommodotonia following cerebral trauma in pathogenesis of other ocular symptoms in encephalopathy, III, 568. post-traumatic

Francis, A. E. See Colebrook, L.

Francis, A. W., and Hill, A. J., bromination of phenols by means of bromide-bromate solution, II, 221.

Francis, T., jun., virus from epidemic influenza, III, 232. Differentiation of influenza-A and -B complement by fixation, III, 396.

See also Salk, J. E.

Francis, V.J., and Jenkins, H.G., electrical discharges in gases and their applications.

I., I, 140. Franck, C., and Grandpierre, R., hormonal nature of vagotonine, III, 250.

Franck, J., and Herzfeld, K. F., theory of photosynthesis, I, 383. and Livingston, R., fluorescence, phos-phorescence, and photochemistry of dyes, I, 150.

Franco, S. C., effect of dihydrotachysterol in parathyroid tetany, III, 184.

Frank, H. E. See Minot, A. S.

Frank, H. S., local dielectric constant and solute activity; hydration-association model for strong electrolytes, I, 414.

and Robinson, A. L., entropy of dilution of strong electrolytes in aqueous solutions, I, 116.

Frank, L. K., puberty and adolescence, III, 1009.

Frank, R. L. See Adkins, H.

Frank, R. T., and Berman, R. L., are results of gonadotropic assay on intact immature rat valid? III,

Hollander, F., and Klempner, E., chick comb method for androgen assay, III,

See also Hollander, F.

Frank-Kamenetzki, D. A., thermal explosion of  $2H_2 + O_2$  mixture, I, 302.

Mechanism of two-stage ignition, I, 419. Applicability of Bodenstein's method in chemical kinetics, I, 471.

See also Semetschkova, A. F.

Franke, H. See Parade, G. W. Franke, K. W. See Painter, E. P. Franke, W., respiration and fermentation (desmolysis), III, 1039.

Frankel, J., and Brown, J. B., isolation of pure linoleic acid by crystallisation, II, 239.

Franklin, K. J., survey of growth of knowledge about certain parts of feetal cardio-vascular apparatus, and about fœtal circulation, in man and other mammals. I. Galen to Harvey, III, 843.

See also Amoroso, E. C.

Franks, A. G., and Fisher, S., sensitisation to arsenical compounds, III, 220.

Franks, W. R. See King, L. F.

Franseen, C. C., Aub, J. C., and Simpson, C. L., experimental production of fibrosarcomas of bone, III, 1023.

Frant, S., and Kleeman, I., cadmium poisoning, III, 1055.

Frantz, A. M. See Ferrebee, J. W.

Frappez, G. See Duchateau, G., and

Florkin, M.

Fraps, G. S., Kemmerer, A. R., and Greenberg, S. M., determination of carotene in presence of lycopene, III, 407. Adsorptive determination of pure carotene, III, 455.

Frary, S. G. See Tarbutton, G. Frasché, D. F., origin of Surigao [Mindanao] iron ores, I, 434.

Fraser, A. M. See Griffith, H. D.

Fraser, D. See Taylor, H. J. Fraser, D. T., Davey, E. L., and Halpern,

K. C., antitoxin response to concentrated diphtheria toxoid applied to nasal mucous membrane, III, 141.

Fraser, G. L. See Bartlett, P. D. Fraser, H. F. See Isbell, H. Fraser, T. N., and Rennie, J. B., sedimentation of erythrocytes, III, 645.

Fraser, W. C. See Elliker, P. R. Frazer, A. C., structure and properties of

fat particles in human serum, III,

and Stewart, H. C., inactivation of cobra venom by finely dispersed emulsion, III, 297.

Frazer, J. C. W. See Ladisch, R. K., and Pitzer, E. C.

Frazier, C. N., and Hu, C., resistance to syphilis in rabbit following prolonged administration of urinary androgens. I. Feminising effects on adult male rabbits. II. Reaction to Treponema pallidum in feminised male rabbits, III, 354.

and Tsao, S. N., neuromuscular symptoms and cutaneous lesions in vitamin-A

deficiency, III, 1034.
Frederick, L. D., and Robinson, H. E., canine nutritional deficiency diseases, III, 1033.

Fredericq, H., cours de physiologie générale [general physiology course], ĬII, 484.

Frederikson, H., endocrine factors in development and function of mammary glands, III, 360.

Free, A. H., increase of vitamin- $B_1$  intake by use of special high- $B_1$  bread, III, 373. Freed, H. See Kingsley, G. R.

Freed, S., and Schultz, M. L., deposition of atmospheric radioactivity on objects exposed to air streams, I, 234.

and Weissman, S. I., lattice vibrations of crystals and corresponding vibrations of their solutions. II., I, 5. Verification of the theoretical numbers of components into which electronic energy levels, are decomposed by crystals, I, 246.

Weissman, S. I., and Fortess, F. E., absorption spectra of ions of europium and electric fields within co-ordination

compounds, I, 239.

Freed, S. C., hormone assays, III, 1001. Rosenbaum, E. E., and Soskin, S., stilbæstrol and liver, III, 357.

Freedberg, A. S., and Barron, L. E., spirochætes in human gastric mucosa, III, 200.

Freedman, A. M., and Kabat, H., pressor response to adrenaline in course of traumatic shock, III, 844.

Freedman, H. See Freeman, N. E. Freedman, S. I. See Youngner, J. S. Freeland, M. R. See Pernokis, E. W.

Freeman, G., antipressor effect of normal blood in experimental hypertension, III,

Freeman, G. G., and Anderson, T. H., hydrolytic degradation of antigenic complex of Bact. typhosum, Ty 2, III,

Freeman, J. T., and Heiken, C. A., geriatric [old age] aspect of pulmonary tuber-culosis, III, 1072.

Freeman, L. W., and Johnson, V., hæmolytic action of chyle, III, 832.

Freeman, N. E., Freedman, H., and Miller, C. C., production of shock by prolonged continuous injection of adrenaline in unanæsthetised dogs, III, 507. Freeman, S. See Fauley, G. B.

Frei, W., attempted sensitisation of guineapigs to quinine, acctylsalicylic acid, and barbital, III, 789.

Freidlin, L. C., Balandin, A. A., and Lebedeva, A. I., thermal transformations

of thallous formate, I, 278. Freidlina, R. H., and Nesmejanov, A. N., synthesis of diaryliodonium salts, II,

Freiman, I.S. See Rabiner, A.M. Freimuth, H.C. See Gettler, A.O.French, C., combined stain for fat and elastic tissue, III, 321.

French, C. L. See Bent, H. E. French, D. See Bear, R. S.

French, H. S., and Corbett, (Miss) G., configuration of nickel salt of formylcamphor, I, 238.

French, J. W., cryolite films on glass surfaces, I, 91.

French, L. R. See Bloomfield, A. L. French, R. S., problem of sight conservation as related to general programme of school organisation, III, 500.

Frenkel, J., electro-capillary theory of splitting of heavy elements by slow neutrons, I, 143. Temperaturedependence of plastic deformation and creep, I, 158. Electric phenomena involved in cavitation caused by supersonic vibrations in liquids, I, 449. and Kontorova, T., theory of plastic

deformation and twinning, I, 159. and Obrastzov, J., phenomenological theory of mechanical properties of amorphous bodies, I, 201.

and Tscherdincev, V., gaseous model of

atomic nuclei, I, 146.

Freudenberg, E., stellulæ palmares et plantares scarlatinæ, III, 83.

and Goetz, H., effect on metabolism of massive dosage of vitamin-D in rickets and tetany, III, 120.

Freundlich, H. See Carr, C. W. Frey, A. See Heffner, R. R.

Frey, C. N. See Schultz, A. S.

Frey, H., psychological aspects of deafness, III, 506. See also Schindler, W.

Frey-Wyssling, A., submicroscopic struc-

ture of cytoplasm, III, 69.

and Blank, F., physiological conditions of anthocyanins in ctiolated seedlings,

and Weber, E., measurement of streaming double refraction in presence of a large double refraction due to the apparatus, I, 347.

Freyberg, R. H., Block, W. D., and Levey, S., human plasma and synovial fluid concentration and urinary excretion of gold during and following treatment with gold sodium thiomalate, gold sodium thiosulphate, and colloidal gold sulphide, III, 1055.

See also Block, W. D., and Smyth, C. J. Frias, E., cyclopropane anæsthesia in severe operative risks, III, 217.

Frick, (Miss) M. See MeBain, J. W.

Fricke, E. See Knudsen, V. O. Fricke, E. F., absorption of sound in five triatomic gases, I, 33.

Friderich, R. See De Diesbach, H.
Friderichsen, C., treatment of pneumonia in children with serum and 2-p-aminobenzenesulphonamidopyridine, III, 393. Treatment of pneumonia in early infancy, III, 459.

Fridman, A. P., and Arkina, R. C., cerebrospinal fluid-sugar in animals and in man, III, 996.

Fridman, S. G., and Lisovskaja, N. N., structure of products of interaction between sodium phenylacetylene and azidochloroethane, II, 233.

Fridman, V. M. See Zilberman, J. I. Fried, A. J. See Levethan, S. T.

Fried, S., and Kleene, R. D., preparation of tetramethylene bromide, II, 209. See also Kleene, R. D.

Friedberg, C. K., sulphapyridine in pneumonia with leukopenia, III, 459.

Friedell, H. L., and Rosenthal, L. M., tobacco chewing and oral cancer, III, Friedell, M. T., partial resection of stomach: effect of its extent on gastric acidity, III, 678.

Friedemann, T. E., and Barborka, C. J., decolorisation of acid digestion mixtures for determination of nicotinic acid, II, 208.

See also Barron, E. S. G.

Friederichsen, C., and With, T. K., vitamin-A and carotenoid content of mother's milk, in relation to diet, III, 209.

Friedewald, W. F., and Anderson, R. S., inactivation of rabbit papilloma virus by X-rays, III, 280.

and Kidd, J. G., union in vitro of papilloma virus and its antibody, III,

Friedgood, H. B., and Berman, R. A., effect of water on accuracy of m-dinitrobenzene reaction in assay of urinary ketosteroids, III, 355.

and Uotila, U. U., occurrence of ovarian "tumours" in spontaneous virilism

of hen, III, 762.

and Whidden, H. L., effect of water on m-dinitrobenzene reaction in determination of crystalline androgens by Evelyn photo-electric colorimeter, III, 354.

See also Wolfe, J. K.

Friedheim, E. A. H., organic arsenical in treatment of tropical sleeping sickness, III, 788.

Freidland, C. K. See Kapp, F. Friedlander, G. See Seaborg, G. T.

Friedlander, H. D., Perlman, I., and Chaikoff, I. L., effects of denervation on phospholipin activity of skeletal muscle as measured with radioactive phosphorus, III, 850.

Friedman, B., Jarman, J., and Klemperer, P., sustained hypertension following experimental unilateral renal injuries, IIÎ, 979.

Friedman, B. B., acute myopia induced by sulphanilamide, III, 865.

Friedman, C. A., and Henry, B. S., bound water content of vegetative and spore forms of bacteria, III, 49.

Friedman, E., cellophane straw used as inkwriting pointer in kymographic work, III, 946.

Friedman, G. J., Sherry, S., and Ralli, E. P., mechanism of excretion of vitamin-C by human kidney at low and normal plasma levels of ascorbic acid, III, 17.

See also Sherry, S. Friedman, H. B., and Elmore, G. V., hydrolysis of methyl acetate in a nonaqueous solvent, I, 271.

Friedman, H.H. See Grayzel, D.M.Friedman, H. J., effect of vitamin-C

deficiency on smooth muscle responsiveness to non-specific stimulation, III, 657. Friedman, I., and Mattill, H. A., oxygen

consumption of skeletal muscle from animals deprived of vitamin-E, III, 497.

Friedman, L. See Christiansen, B. E. Friedman, M., Selzer, A., and Rosenblum, H., renal blood flow in hypertension, III, 978.

Selzer, A., Rosenblum, H., McLean, P., and Picard, W., renal blood flow in coarctation of aorta, III, 845.

Selzer, A., and Sampson, J. F., pressor substance in blood [from ischæmic kidney] of dog, III, 735. Friedman, P. S. See Goldberg, S.

Friedman, R., and Master, A. M., heart sounds in myocardial infarction due to acute coronary occlusion, III, 841.

Friedman, S. J., and Miller, C. O., liquid

films in viscous flow region, I, 459.

Friedman, S. M., effect of progesterone anæsthesia on systemic blood pressure, III, 873.

See also Selye, H.

 Friedman, T. B. See Dorne, M.
 Friedrichs, A. V., application and interpretation of Friedmann's modification of Aschheim-Zondek test, III, 875.

Friend, A. G., treatment of congestive heart failure, III, 843.

Friend, D. G., action of drugs on metabolism of tissue in serum, III, 695.

and Hastings, A. B., measuring metabolism of tissue in serum, III, 602.

and Krayer, O., manometric estimation of activity of choline-esterase in lymph, III, 623. Elimination of prostigmine, III, 909.

Friend, J. N., samarium selenate and its solubility in water, I, 164.

and Allchin, J. P., selenium and tellurium contents of sulphur from Krisuvik, Iceland, I, 228. Fries, B. A., Entenman, C., Changus, G. W.,

and Chaikoff, I. L., deposition of lipins in central nervous system of growing rats, III, 343.

Fries, J. H., and Jennings, K. G., recurrent vomiting in children, III, 361.

Friesen, S. von, large molecular pumps of disc type, I, 179.
Frigge, H. See Schmitt, F.

Friggeri, A., animal and plant catalases, III, 225.

Frimberger, F., provocatory and therapeutic action of prontosil on rheumatic polyarthritis, III, 35.

Frisch, A. W., sputum studies in type III pneumonia, III, 309.

Fritz, J. C., Archer, W., and Barker, D. riboflavin requirements of ducklings, III,

Frizzell, L. D. See Jones, G. Frobisher, M., jun. See Verwey, W. F.Froehlich, A. (Antwerp), and Scherer, H. J., visceral form of Besnier-Boeck disease,

Fröhlich, A., (Frankfurt), white blood cell count during refrigeration [of rabbits]. 111, 326.

Fröhlich, H., dielectric strength of mixed crystals, I, 454.

Fróes Abreu, S. See under Abreu, S. F. Frohnwieser, K., hormonal treatment of habitual and imminent abortion, III, 100.

Fromageot, C. See Laskowski, M.

Fromaget, J., eruption of permanent teeth in upper Neolithic negroes, III, 640.

Fromherz, K., pharmacological actions of vitamin-K preparations, III, 523. Frondel, C., re-definition of tellurobis-

muthite and vandiestite, I, 228. Unit cell and space-group of vrbaite, seligmannite, and samsonite, I, 354. Exsolution growths of zincite in manganosite and of manganosite in periclase, I, 354. Whitlockite: a new calcium phosphate, Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>, I, 490. Constitution and polymorphism of pyroaurite and sjögrenite groups, I, 491.

Frost, A. A., and Hurka, V. R., adsorption of vapours at solid surfaces and change of surface electrical potential, I, 108.

Frost, A. V. See Dobuitschin, D. P. Frost, D., vitamin-B complex, III, 1034.

Frost, D. V., Elvehjem, C. A., and Hart, E. B., need for cobalt in dogs on milk diets, III, 373.

Frostberg, N., bone defects in terminal

phalanges, III, 2. Fruktova, E. P. See Kozlov, V. V.

Frumkin, A., overvoltage theory of H. Eyring, I 85.

See also Dolin, P.

Frutiger, U., demineralisation of long bones after trauma as primary symptom of acrodystony and dystrophy, III, 546.

Fruton, J. S., proteolytic enzymes, III, 1062.

and Bergmann, M., specificity of salmon

pepsin, III, 136. Irving, G. W., jun., and Bergmann, M., proteolytic enzymes of animal tissues. II. Composite nature of ox spleen cathepsin, III, 534. See also Irving, G. W., jun.

Fry, E. M., and Fieser, L. F., 4:5-benz- $\Delta^4$ cyclooctenone, II, 105.

Fry, K. E. See Shallow, T. A. Fry, W. E. See Swanson, E. E.

Frye, J. C. See Lohman, S. W. Frye, W. E. See Hoyt, F. C. Fuchs, A. M. See Spain, W. C.

Fuchs, H. G. See Reichstein, T.

Fuchs, K., operator calculus in electron theory of metals, I, 25.
Fuchs, Kurt, vestibular function and flyers,

III, 867.

Fuchs, W., thermodynamics and coal formation, I, 356.

Ishler, N. H., and Sandhoff, A. G., determination of hydroxyl groups with Grignard reagent, II, 56.

Fuda, M. See Katsurai, T. Fünfer, E. See Steiner, K. Fürst, A. See Ruzicka, L.

Fürth, R., stability of crystal lattices. Equation of state and melting of solids. VI. Properties of matter under high pressure and lattice theory of crystals. I, 106, 198. Thermodynamical theory of tensile strength of isotropic bodies, I, 159. Theory of liquid state. I. Statistical treatment of thermodynamics of liquids by theory of holes. II. Application of hole theory to superheated liquids and supersaturated solutions of gases in liquids. III. Hole theory of viscous flow of liquids, I, 369.

See also Born, M.

Fugassi, P. See Rudy, C. E., jun.

Fugo, N. W., and Gross, E. G., yohimbine and cestrous cycle in rats, III, 875.

See also Witschi, E. Fuhrmann, F. A., and Stuhr, E. T., pentobarbital sodium as anæsthetic for mink, III, 1051.

Fujii, K. Sec Tsurumi, M.

Fujikawa, F., antiseptic action of phenols, phenolcarboxylic acids, and their esters present in lichens. VIII. Esters of  $\beta$ -orcinolcarboxylic acid, II, 291.

and Fushimi, J., antiseptic action of phenols, phenolearboxylic acids, which participate in formation of lichen substances, and their esters. IX. Antiseptic action on shoyu of orsellinic esters, orcinoldicarboxylic esters, and derivatives of hydroxydiphenylmethane, III, 925.

Nakamura, I., and Asami, K., dulcitol in Cassytha filiformis, L., III, 942.

Fujimori, M., influence of syphilis on resisting power [to diphtheria toxin], III, 309. Experimental infection of guineapig with syphilis, III, 310.

Fujimoto, N. See Watanabe, M. Fujisiro, R. See Mizushima, S. I.

Fujita, Shinzaburo, cleavage of phosphoric acid esters of aliphatic and aromatic alcohols, III, 137. See also Watanabe, M.

Fujita, Sigeru. See Arii, K.

Fujita, T., morphology and phylogeny of so-called "rootless teeth," III, 638.

Fujiwara, T. F. See Karsner, H. T. Fuks, K. M. See Sorenji, E. T. Fukuhara, N., and Bigelow, L. A., action of fluorine on organic compounds. X. Vapour-phase fluorination of acctone, II, 16ô.

Fukui, M., action of sulphuric acid on sucrose, II, 34.

Fukumi, H., oxidation-reduction potential and bacterial metabolism, III, 925.

Sato, T., and Shiraishi, K., relation between S-R variation of Ohara dysentery bacilli (so-called Kruse-Sonne bacilli) and bactericidal substances contained in normal serum,

III, 52. Fukura, T. See Yoshida, Tadasi.

Fukushima, S. See Tsuda, K.
Fukushima, S. See Tsuda, K.
Fukuti, G. See Nakamura, Harukichi.
Fulcher, O. H., sympathectomy for control of pain, III, 490.

Fuld, M. Sec Meyer, K. H.

Fuller, C. S., Baker, W. O., and Pape, N. R., crystalline behaviour of linear polyamides; effect of heat-treatment, I, 103.

See also Baker, W. O.

Fuller, J. E., and Higgins, E. R., onion juice and bacterial growth, III, 625.

Fuller, J. O., mechanical polishing [of minerals] with a film of abrasive, 1, 432.

Fuller, M. F., gallstone obstructing duodenum, III, 878.

Fuller, R. H., Brown, E., and Mills, C. A., environmental temperatures and spontaneous tumours in mice, III, 1027.

Fullerton, H. W., determination of pro-

thrombin, III, 75.
Fulmer, E. I., Hickey, R. J., and Underkoffer, L. A., determination of glycerol in fermentation media containing glucose, III, 228.

See also Dunning, J. W.

Fulton, F. T. See Cutts, F. B. Fulton, G. P., and Lutz, B. R., neuromotor mechanism of small blood vessels

of the frog, III, 82. Fulton, J. F. See Zuckerman, S.

Fulton, R. A., and Romney, V. E., chloro-

form-soluble components of beet leafhoppers as an indication of the distance they move in the spring, III, 771.

Funahashi, S. See Ugami, S. Funk, D. See D'Amour, F. E.

Fuoss, R. M., electrical properties of solids. VI. Dipole rotation in high polymerides. VII. System polyvinyl polyvinyl chloride-diphenyl, I, 202.

and Kirkwood, J. G., electrical properties of solids. VIII. Dipole moments in polyvinyl chloride-diphenyl systems, Ī, ž02.

See also Kirkwood, J. G.

Furchgott, R. F., and Ponder, E., electrophoresis of human red blood cells, III, Furcolow, M. I., Hewell, B., Nelson, W. E., and Palmer, C. E., quantitative studies of tuberculin reaction, III, 806.

Furman, N. H., and Flagg, J. F., organic reagents and methods involving their use; indirect volumetric determination of metals precipitated by organic reagents of oxime type, I, 126.

See also Creutz, E. C.

Fursov, V., and Vlassov, A., breadth of spectral lines at large densities of a homogeneous gas, I, 137. Furst, W. See Bellet, S.

Furth, J., and Barnes, W. A., differences between malignant blood cells from induced and spontaneous leukæmias of mice, III, 278.

and Krumdieck, N., splenic reticulum cell tumours in mice, III, 206.

See also Barnes, W. A., and Kabat, E. A. Fushimi, J. See Fujikawa, F.

Fuson, R. C., Corse, J., and McKeever, C. H., stable vinyl alcohol, αβ-dimesityl- $\Delta^a$ -propen-a-ol, II, 222. and Denton, J. J., abnormal reaction

in Sommelet aldehyde synthesis, II, 165.

and Horning, E. C., enediols. V. Hexaisopropylstilbenediols, II, 223.

Robinson, J. W., jun., and Behr, L. C., tert.-amides of adipic, azelaic, and sebacic acids, II, 123.

Fustinoni, O. See Houssay, B. A.

Futagami, T., thermoluminescence of quartz after irradiation with X-rays, I, 436.

Futagawa, N., Parkinson's disease in pregnancy, III, 987.

Futcher, P. H. See Emerson, K., jun., and Farr, L. E.

Fuxa, R. J. See O'Brien, S. J. Fuzikawa. See under Fujikawa.

Fye, P. M., and Beaver, J. J., rigid purification of chlorine, I, 344. Photochemical formation of phosgene, I, 480.

Fykow, A., treatment and prognosis of sepsis in infancy, III, 611.

G.

Gaarenstroom, J. H., sexual development of fowls derived from eggs treated with estradiol benzoate, III, 193.

and Levie, L. H., disturbance of growth by diethylstilbæstrol and æstrone, III, 193.

Gabaev, S. G., production of cucumber-polyploids by treatment with colchicine and acenaphthene, III, 404.

Gabinus, O., is delay in development of centres of ossification pathognomic of thyroid deficiency? III, 65.

Gabriel, W. B., squamous-cell carcinoma of the anus and anal canal: analysis of 55 cases, III, 591.

Gabrilove, J. L., carcinoid in stomach tissue within ovarian dermoid, 111, 591. Gachet, F. S., hæmorrhagic nephritis in children, III, 1020.

Gachokidze, A. M., isomerisation of the control of of galactose, and galactodesonic acid. VIII. Conversion of l-arabinose into l-arabosaccharic acid, II, 34. Grignard synthesis of glucosaccharic acid from l-arabinose, II, 350. Synthesis of glucosido-2-glucose, II, 352.

Gaddum, J. H., recording respiration, III,

Gaddy, V.L. See Wiebe, R.

Gaebler, O. H., and Baty, M., detection and titration of chromate in blood-iodine

determinations, III, 716. and Galbraith, H. W., effects of anterior pituitary preparations in experimental pancreatic diabetes, III, 352.

Gärtner, H. See Reploh, H. Gaessler, W. G. See Norman, A. G.

Gätzi-Fichter, M., Reich, H., and Reichstein, T., crystalline sodium salt of pantothenic acid, II, 184.

See also Grüssner, A.

Gaffron, H., carbon dioxide reduction with molecular hydrogen in green algæ, III, 149. Induction period of photosynthesis and light respiration in green alga, III, 149.

Gage, M., geology of iron ores of Collingwood District, N.W. Nelson, I, 64.

Gagel, O. See Foerster, O.

Gager, L. T., coronary artery disease, III,

Gagnon, P. E., Cloutier, L., and Martineau, R., precipitation of carbonates, borates, silicates, and arsenates, I, 424.

Gahlemann, C., nirvanol treatment of chorea minor, III, 465.
Gaillard, G. E. See Spain, W. C.
Gaillard, P. J. See Smook, A. H.

Gaind, K. N., Ray, J. N., and Yajnik, J. N., synthesis of local anæsthetics. IV., II,

Gaines, J. A. See Geist, S. H. Gaines, W. See Wakerlin, G. E. Gaines, W. L., milk-energy yield and correlation between fat percentage and milk yield, III, 367.

Rhode, C. S., and Cash, J. G., age, live weight, and milk-energy yield in Illinois cows, III, 450.

Gainey, P.L. See Kroulik, J.T. Gaisford, W.F., and Whitelaw, W.sulphathiazole in lobar pneumonia, III, 214.

Gaisinskaya, M. J., carbohydrate metabolism in pancreas. II. Effect of pancreatic factor and amylase on glycolysis in pancreatic and muscle tissue, III, 690. Galambos, E., cochlear potentials from the

bat, III, 347. Galambos, R., loss of tension by smooth muscle during relaxation and following stretch, III, 340.

Galapeaux, E. A. See Adler, H. F., and Templeton, R. D.

Galar, M., potentiometric determination of chlorides in presence of bromides, I, 305. Galbraith, F. W., ore minerals of La Plata mountains, Colorado, compared with

other telluride districts, I, 434. and Kuhn, T. H., dioptase in Arizona,

I, 182. Galbraith, H. W. See Gaebler, O. H.

Gale, E. F., production of amines by bacteria. II. Production of tyramine by Streptococcus facalis. III. Production of putrescine from l(+)-arginine by Bacterium coli in symbiosis with Streptococcus facalis, III,

[with Brown, G. L., MacIntosh, F. C., and White, P. B.], production of amines by bacteria. IV. Decarboxylation of amino-acids by organisms of Clostridium and Proteus groups, III, 308.

Gales, J. W. See Slaughter, D. Galkin, V. S., and Ginzburg, E. A., tissue emulsions as irritants for production of dystrophic lesions in dogs, III, 1022.

Gall, E. A., Barr, J. S., and Lingley, J. R., effect of elementary phosphorus on epiphysis of rat, III, 238.

Lingley, J. R., and Hilcken, J. A., studies of 200-kilovolt and 1000kilovolt Roentgen rays; biological effects on epiphysis of albino rat, III, 467. Studies of 200-kilovolt and 1000-Roentgen rays, III, 792.

and Stout, H. A., histological lesion in lymph nodes in infectious mononucleosis, III, 165.

See also Lingley, J. R.

Gallacher, T. R., mineral content of Bevier coal seam, Boone County, Missouri, 1, 232.

Gallagher, D., albite and gold, I, 61.

Magnetite in sulphide ores, I, 227.

Ores of Lupa Goldfield, Tanganyika Territory, East Africa, I, 492.

Galtsoff, P. S., physiology of reproduction of Ostrea virginica. II. Stimulation of spawning in female oyster, III, 955.

Game, P. M., optical properties of olivines from Ubekendt Island, west Greenland, I, 228.

Gammage, F. V., right homonymous hemianopsia, III, 668.

Gammon, G. D., and Starr, I., relief of pain by counter-irritation, III, 341. See also Lewy, F. H.

Gamna, C., and Boselli, A., treatment of streptococcal septicemia, III, 460.

Gamon, E. See Burdick, H. O.

Gamow, G., relative importance of different elements for neutrino production, I, 289.

and Schönberg, M., possible rôle of neutrinos in stellar evolutions, I, 71. Neutrino theory of stellar collapse, I, 289.

Ganapathi, K., chemotherapy of bacterial infections. III. Synthesis of (N<sup>4</sup>)-amino-substituted heterocyclic derivatives of sulphanilamide. IV. Synthesis of N'-sulphonamide-substituted heterocyclic derivatives of sulphanilamide, II, 23, 338. Synthesis of N'-substituted heterocyclic derivatives of sulphanilamide, II, 109.

Ganapathy, C. V., and Sastri, N. B., milkclotting activity of papain, III, 137.

Gandolfo Herrera, R., and Sammartino, R., uterine grafts in guinea-pigs, III, 190. Effect of dihydrofolliculin benzoate on uterine transplants in guinea-pigs, III, 356.

Gandour, M. See Dastugue, G.

Ganguli, N., and Krishnan, K. S., magnetic and other properties of free electrons in graphite, I, 156.
Ganguli, S. C., decay of hydrogen over-

potential at a mercury surface, I, 301.

Ganguly, M. See Banerjee, K. Ganguly, P. B., coagulation of colloids by bi-metallic junctions, I, 335.

Gannon, C. F. See Localio, S. A. Gannon, G. P. See Guy, W. H. Gant, D. H. T., and Krishnan, R. S.,

deuteron-induced fission in uranium and thorium, I, 441.

Gantmacher, A. R., Volkenstein, M. V., and Sirkin, J. K., Raman effect of

oxonium compounds, I, 72, 321.

Gantscheva, N. See Konsulov, S.

Gaponenkov, T. K., swelling of pectins,
I, 13. Pectic substances in sugar beetroot, III, 539.

and Movschovitsch, F. L., coagulation of pectic substances at various ph values, I, 260.

Garai, F., heptaldehyde-sodium bisulphite: toxicity and effect on spontaneous mammary carcinoma in mice, III, 1029.

Garand, N. D. See Boyd, E. M. Garber, H. J., and Goodman, A. W. fractional crystallisation; mathematical analysis of fractional crystallisation problems in n-component systems, I, 266.

Garber, R. I., determination of elastic limit at twinning of calcite, I, 329. Mechanical twinning of calcite between -150° and 440°, I, 329.

Gard, P. W., prevention of common communicable diseases, III, 537.

Gard, S., encephalomyelitis of mice. Measurement of virus activity, III, 54. Detection of poliomyelitic virus in sewage and stools, III, 55. See also Theiler, M.

Gardner, A. D., morphological effects of

penicillin on bacteria, III, 304. See also Abraham, E. P., and Chain, E. Gardner, E., and Blanton, W. B., incidence of aspirin hypersensitivity, III, 530.

Gardner, F. E., and Marth, P. C., effectiveness of several growth-substances on pathenocarpy in holly, III, 402. See also Nixon, R. W.

Gardner, G. H., gynæcological management

of barren marriage, III, 875.

Gardner, J. A. F. See Brawn, J. S.

Gardner, J. H., experiment illustrating diffusion, I, 107.

and Snyder, C. J., action of Grignard reagents on heavy metal salts. Formation of olefines in reaction with silver bromide, II, 5.

Gardner, L. U., Dworski, M., and Delahant, A. B., inhibitory effects of aluminium compounds in silicosis, III, 920.

Gardner, M. B. See Steinberg, J. C. Gardner, R. E. See Bailey, G. H., Blumberg, H., and Morrison, S.

Gardner, W. H. See Kirk, P. M.

Gardner, W. J., and Turner, O., bilateral acoustic neurofibromas; hereditary deafness and Recklinghausen's disease. III, 254.

See also Higgins, C.C., and Karnosh, L.J.Gardner, W. U., growth of mammary glands in hypophysectomised mice, III, 352. Inhibition of mammary growth by large amounts of æstrogen, III, 357. Breaking strength of femurs of mice receiving estrogens, III, 578. Effect of cestrogen on incidence of mammary and pituitary tumours in hybrid mice, III, 1025.

and Chamberlin, T. L., local action of estrone on mammary glands of mice,

III, 763.

and De Vita, J., inhibition of hair growth in dogs receiving estrogens, III, 676.

See also Allen, E., Blaisdell, J. S., Chamberlin, T. L., Kirschbaum, A., Landauer, W., and Pfeiffer, O. A.

Gárdos, S. von, rare diseases of erythropoietic system, III, 326. Post-meningotic external hydrocephalus cured by air injection, III, 664.

See also Szász, A. von.
Garkavi, P. G., splitting of carnosine by intestinal enzymes, III, 922.

Garland, L. H., effect of iodised oil on cerebral and spinal meninges, III, 179. and Morrissey, E. J., intracranial col-

lections of iodised oil following lumbar

myelography, III, 566. Garrard, E. H. See Castell, C. H. Garretson, H. H. See Tartar, H. V. Garrett, A. B., and Heiks, R. E., equilibria in the stannous oxide-sodium hydroxide and stannous oxide-hydrochlorie acid systems at 25°; analysis of dilute solutions of stannous tin, I, 212

See also Fox, R. K., and Hogge, E. Garrison, J. See Billman, J. H. Garry, R. C. See Davidson, J. N. Garside, J. E. See Hepburn, J. R. I.

Garth, R. C., and Moore, G. E., afterglow in mercury vapour. I. and II., I, 437. Gartner, S., congenital retinal folds and

microcephaly, III, 346. Garton, C. G., dielectric loss in thin films of insulating liquids, I, 243.

Garvey, P. H., Jones, N., and Warren, S. L., polyradiculoneuritis following sulphanilamide and fever therapy, III, 461.

Garvin, C. F., fatty degeneration of myocardium, III, 79. Renal com-plications of sulphathiazole, III, 461. Mural thrombi in heart as source of emboli, III, 495. Sulphathiazole and sulphapyridine in pneumococcal pneumonia, III, 608.

and Reichle, H. S., death due to salt restriction test in diagnosis of Addi-

son's disease, III, 95.

Gascoigne, R. M., fission of cyclopropane ring of a-thujene, II, 197. Detection and estimation of a-terpinene by means of diene synthesis, II, 197.

Gassmann, A. G., and Hartman, R. J., interaction of cyclohexanol and hydrogenchloride, I, 474. Esterification of disubstituted benzoic acids in methyl alcohol, I, 474.

Gassner, F. X. See Wilgus, H. S., jun. Gast, P. F., and Loughridge, D. H., cosmic rays in the Bering Sea, I, 315. Latitude effect of cosmic rays above 50° N. latitude, I, 315.

See also Loughridge, D. H. Gastineau, F. M. See Schwartz, Louis. Gatenby, J. B., behaviour of osmic-reducing substance of protozoa during cell

division, III, 826. and Aykroyd, O. E., cytology of human

uterine glands in gravid phase, III, 413. See also Aykroyd, O. E.

Gates, J. W., jun. See Allen, C. F. H. Gates, M. D., jun. See Fieser, L. F. Gates, O. See Schrek, R., and Warren, S. Gattone, V. H. See Munch, J. C.

Gatty, O., electrical polarisation of frog skin by direct currents, III, 921.

Gatty-Kostyal, M., and Tesarz, J., nucleic acid of rye ergot. II., II, 53.
Gatzaniuk, M. D., effect of blood trans-

fusion on cholesterol, fatty acids, and water in rabbits' organs, III, 829. Effect of cosin injections on metabolism in rabbits, III, 1056.

Gauch, H. G., and Miller, E. C., influence of awns on rate of transpiration from heads of wheat, III, 539.

Gaudier, M. H., resection of first sympathetic thoracic ganglia in pulmonary tuberculosis, III, 88.

Gaukel, L. A. See Kerr, W. H. Gaunt, W. E., and Irving, J. T., dietary calcium and phosphorus and teeth, III,

Gavankar, (Miss) K. D. See Hirwe, N. W. Gavaudan, N. Seo Gavaudan, P.

Gavaudan, P., and Gavaudan, N., effect of chemical constitution and physical properties in action of cyclic hydro-carbons on plant karyokinesis and morphogenesis, III, 940.

Gavin, G., and McHenry, E. W., inositol: a lipotropic factor, III, 603. See also Longeneeker, H. E., and

McHenry, E. W. Gawler, D. R., mustard gas, with special reference to eye lesions, III, 500.

Gawron, O. See Matzner, M. J.
Gaydon, A. G., flame spectrum of carbon monoxide. I. and II., I, 97, 362.

After-burning of carbon monoxide, I,

Geary, J. M. See Flinn, F. B.

Gebauer, A., blood counts in Hodgkin's

disease, III, 72.

Gedda, E., and Kjellberg, K., vitamin-C content of breast milk, III, 27. Vitamin-C content of hips (Cynosbatta), III, 120.

Gee, G., mol. wts. of rubber and related materials. I. Experimental methods. II. Osmotic pressure and viscosity of

solutions of raw rubber, I, 13. Geier, F. M., Levin, M., and Tolman, E. C., differences in emotionality, hypothesis formation, vicarious trial and error, and visual discrimination learning in rats, III, 669.

Geiger, A. See Karrer, P. Geiger, A. J., Goodman, L. S., and Claiborn, L. M., effects of gastro-intestinal resections in swine on anti-anæmia potency of liver, III, 644.

Geiger, C. See Wood, H. G.

Geiger, F., fate of more-positive [tuberculosis test] children and adolescents, III, 805.

Geiger, J., crymotherapy; basal metabolism determinations, III, 531.
Geigle, W. F. See Briggs, T. R.
Geiling, E. M. K., neurohypophysis, III,

439.

See also Chen, G., and Smith, B., jun. Geiser, O. See Albrecht, A.

Geisler, A. H. See Barrett, C. S.
Geissman, T. A., anthochlor pigments;
pigment of Corcopsis douglasii, III,

543. Improved isolation of eriodictyol and homoeriodictyol, III, 543. and Morris, L., reaction between lactones

and Grignard reagents. I. Diphenyl-I:8-naphthalide, II, 201.

See also Adams, R. Geist, S. H., Gaines, J. A., and Escher, G. C., vaginal œstrus in irradiated mice, III,

See also Salmon, U.J.

Geldrich, J., hyperinsulinism in suckling, III, 350. Simmonds' disease in infancy, III, 438.

Gelelovitsch, E. I. See Schesterikova, T. P.

Gellhorn, E., fundamental principles in adjustment reactions of organism to anoxia, III, 848.

Allen, A., and Feldman, J., assay of insulin on hypophysectomised, adreno-demedullated, and hypophysectomised-adrenodemedullated rats, III, 757. Influence of emotional excitement on insulin content of blood in normal and psychotic patients, III, 839.

Cortell, R., and Feldman, J., autonomic basis of emotion, III, 88.

Kiely, W. F., and Hamilton, S. L., influence of carbon dioxide on excitability of vasomotor centre in hypoglycamia, III, 496.

Packer, A., and Feldman, J., hypoglycæmic and anoxic convulsions, III,

Gellhorn, E. Sec also Carlson, H. B., Feldman, J., and Kessler, M. Gelman, R. M. Sec Koldaev, B. M.

Gemant, A., ionic mobilities in insulating

liquids, I, 150.

demmill, C. L., and Hamman, L., effect of insulin on glycogen deposition and on glucose utilisation by isolated muscles, III, 756.

Gendel, S., and Fine, J., effect of acute intestinal obstruction on blood and plasma volume, III, 105.

Sec also Fine, J.

Genell, S., muscular functions of vagina

and uterus in rat, III, 99.

Genes, S. G., and Dementii, N. T., oxygen consumption and carbon dioxide formation in normal and diabetic dog tissue, III, 898.

Gengerelli, J. A., and Holter, N. J., stimulation of nerves by alternating electric

fields, III, 852.

Gengrinovitsch, A. I. See Fialkov, J. A. Genkin, A. M., determination of glycogen in blood, III, 969.

Genovese, S. See Vero, F. Gensler, W. J. See Lauer, W. M.

Geohegan, W. A. See Hare, K.

Georgievskaja, A. M. See Abuladze, K. C. Gerard, R. W., and Libet, B., control of normal and "convulsive" brain potentials, III, 567. See also Panimon, F.

Gerasimov, I. J., thermal dissociation of bismuth sulphide. II., I, 84.

Gerasimov, M. M., and Glushnev, V. E., effect of zine chloride on octyl alcohol, II, 181.

Gerasimov, P. N., determination of vitamin- $B_1$  in urine, blood, and cerebrospinal fluid by thiochrome method, III,  $8\overline{9}2.$ 

Gerber, A. B., and Miles, F. T., analysis of sodium meta-, pyro-, and orthophosphates, I, 386.

Gerbilski, N. L., seasonal changes of gonadotropic potency of pituitary glands in fishes, III, 575.

Gerdts, K. E., detection of B. tuberculosis in sputa, III, 805.

Gergely, K., influence of apple diet on dysentery of sucklings, III, 371. Gerhardt, F. See Ezell, B. D.

Gerin-Lajoie, L., utero-salpingography, III, 674.

Gerjuoy, E., Zeeman effect, I, 438.

Gerlaugh, P. See Hunt, C. H.
Gerloczy, F. See Recht, S.
Gerlough, T. D., Reuben, B. S., Blumenthal, R., and Palmer, J. W., antipneumococcal rabbit serum, III, 930.

See also Palmer, J. W. German, W. J. See Turner, R. S.

Germann, F. E. E., and Hensley, J. W., quantitative capillary luminescence analysis, I, 90.

Germer, L. H. See White, A. H. Gerö, L., and Schmid, R. F., rotational analysis, perturbation, and predissociation in CD and CH bands, I, 237. Vibrational analysis of CD and CH bands

in region 2260-2500 A, I, 444. Gerrard, W., interaction of n-butyl alcohol and chlorides and oxychlorides of phosphorus in absence and in presence of

pyridine, II, 36. Gersdorff, W. A., and Smith, L. E., effect of halogenation of phenol molecule on toxicity to goldfish. III. Monoiodophenols, III, 530.

Gersh, I., and Caspersson, T., total protein and organic iodine in colloid and cells of single follicles of thyroid gland, III,

See also Brooks, C. McC.

Gershenfeld, L., and Witlin, B., surface tension reducents in bactericidal solutions: their in vitro and in vivo efficiencies, III, 925.

Gershman, R. See Foglia, V. G. Gershon, S. D. See Webster, G. L. Gershon-Cohen, J. See Shay, H.

Gerson, M., dental caries, III, 203. Feeding of German army, III, 772.

Gerstenberg, H. W., lymphosarcomatosis and eosinophilia, III, 72.

Gerster, J. C. A., crymotherapy, III, 531. Gerstley, J. R., Kasanin, J., and Lowenhaupt, E., teratoma of the pineal body, III, 348.

See Kirschbaum, E. Gerstner, F. Gerzanits, P., structure of head of femur, III, 65.

Geschickter, C. F. See Bucher, N. L. R. Gesell, R., Lapides, G., and Levin, M. interaction of central and peripheral chemical control of breathing, III, 251. and Moyer, C., dual excitatory action of vagal stretch reflex [from lungs], III,

65¥. and Worzniak, J. J., origin of expiratory activity patterns, III, 655

Gettler, A. O., and Freimuth, H. C., carbon monoxide content of blood under various conditions, Ill, 175.

See also Sproull, R. C.Gettner, H. See Abramson, H. A.

Geyer, H., cerebral convolutions of twins, III, 825. Geyer, J. H. See Wegria, R.

Ghormley, R. K. See Hoffmann, H. O. E. Ghosh, J. C., and Basak, N. G., cataphoretic speed of sol particles as dependent on redox potential of the liquid medium, I,

Ghosh, R., Todd, A. R., and Wright, D. C. Cannabis indica. VI. Condensation of pulegone with alkylresorcinols; new synthesis of cannabinol and of a product with hashish activity, II, 145.

Ghosh, S. M. See Chatterjee, H. M. Ghosh, T. N. See Das-Gupta, D.

Giacalone, A., surface activity. V. Surface activity and osmotic pressure in inorganic salts, I, SO.

Giauque, W. F., and Meads, P. F., heat capacities and entropies of aluminium and copper from 15° to 300° K., I,

and Stout, J. W., decrease in resistance of constantan with a magnetic field at temperatures between 1° and 20° K., I, 105.

Stout, J. W., Egan, C. J., and Clark, C. W., measurement of adiabatic differential magnetic susceptibility near 1° K.; heat capacity of gadolinium phosphomolybdate tridecahydrate from 0.17° to 4.7° absolute, I, 198.

See also Meads, P. F., and Stout, J. W. Gibb, T. R. P., jun. See Morton, A. A.
 Gibbon, J. H., jun., maintenance of life during experimental occlusion of pulmonary artery followed by survival, III,

Gibbons, N. E. See Thistle, M. W., and Woodcock, A. H.

Gibbs, E. W. See Mason, M. L. Gibbs, H. F., post-natal development of skin and hair of mouse, III, 824.

Gibbs, O. S., Pond, II., and Hansmann, G. A., toxicological studies on ammoniated mercury, III, 916.

Gibling, T. W., molecular volume and

structure. I. and II., I, 324.
Gibson, C. S., and Weller, W. T., organic compounds of gold. VIII. Dialkyl gold derivatives of dibasic acids, II, 124.

See also Ewens, R. V. G. Gibson, J. G., clinical significance of blood volume, III, 963.

See also Brines, J. K.

Gibson, L. H. See Colwell, R. C.
Gibson, M. Seo Wilson, R.
Gibson, R. B. See Cullen, S. C., Hall,
W. K., and Johnston, G. W.

Gibson, R. E., physical reflexions in a chemical mirror, I, 407.

and Loeffler, O. H., pressure-volumetemperature relations in solutions. IV. Apparent volumes and thermal expansibilities of sodium chloride and sodium bromide in aqueous solutions between 25° and 95°. V. Energyvolume coefficients of carbon tetra-chloride, water, and ethylene glycol, 1, 201, 250.

Gibson, S., athletic activity at puberty, with reference to cardiac and tuberculous patient, III, 1009.

Giedosz, B. See Elmer, A. W. Giella, M. See Vernon, A. A. Giersch, M. C. See Cook, E. S.

Giese, A. C., effects of ultra-violet radiations on luminescence and respiration of Achromobacter fischeri, III, 626. Effects of ultra-violet radiations on cleavage of sea urchin eggs, III, 955.

and Chase, A. M., effect of cyanide on Cypridina luciferin, III, 136.

See also Chase, A. M.

Giffin, H. Z. See Nygaard, K. K.
Giffin, L. A. See Waugh, J. M.
Gifford, J. H., and Wilkinson, F. A. H., comparative study of three spinal anæsthetic agents, III, 464.

Gigante, D., use of ancurin dihydrochloride in preparation of pigeons for determination of beri-beri quotient  $(Q_b)$ , III, 25.

Gigon, A., peroral administration of strophanthin, III, 463.

and Noverraz, M., photometric determination of serum-urea, III, 76. Blood-carbon monoxide content, III, 84. Surface tension of blood serum, III, 167.

Giguère, P. A., and Rundle, R. E., vapour density of hydrazine, I, 249.

Gilbert, N. C., Fenn, G. K., and Le Roy. G. V., distention of abdominal viscera and coronary blood flow, 111, 495.

Gilbert, S. G., and Shive, J. W., directreading flowmeter: use in plant respiration studies, III, 946.

Gilbert-Dreyfus, and Rymer, M., mammary gland extracts [for menstrual disorders], III, 1013.

Gildart, L., and Wright, N., infra-red absorption cell for volatile liquids, I, 348. Gildea, E. F., and Man, E. B., effect of adrenaline on blood-lipins of normal

man, III, 167. See also Riggs, D. S.
Gildersleeve, N. See Lucchesi, P. F.
Gill, A. M., sulphapyridine in staphylo-

coccal meningitis, III, 34. Gill, J. D., jun. See Bartlett, P. D.

Gill, P. S., azimuthal variations of cosmic radiation for 60° zenith angle at 22° latitude, I, 396.

Gillam, A. E., Hey, D. H., and Lambert, pyridines and pyridyldiphenyls, I, 363. A., absorption spectra of phenyl-

and Kon, S. K., passage of carotenoids from food to milk in the cow; fate of lycopene, III, 603.

Lynas-Gray, J. I., Penfold, A. R., and Simonsen, J. L., constitutions of eremophilone, hydroxyeremophilone, hydroxydihydrocremophilone. IV., II, 136.

and West, T. F., distribution of the double linkings in irone, II, 327.

See also Booker, H., and Chalmers,

J. N. M.
Gillam, W. S., geographical distribution of black soil pigment, I, 64. Photometric method for determination of magnesium,

Gillespie, C. E. See Hughes, J. G.

Gillespie, H. B., and Rettger, L. F., bacterial variation: formation and fate of variant cells of Bacillus megatherium,

Gillespie, J. B., and Rogers, J. C. T. enterogenous cyst of duodenum, III, 271.

Gillespie, J. M. See Rubbo, S. D.

Gillespie, L. J., and Berck, S., thermal diffusion in ternary liquid mixtures, particularly aqueous solutions containing ferrous chloride, I, 250.

Gillespie, N. A., endotracheal anæsthesia in infants, III, 464.

Gillespie, R. W. H., and Porter, J. R., bacterial oxidation-reduction. III. Characteristic potentials of cultures of

Aerobacillus species, III, 52.

and Rettger, L. F., bacterial oxidation-reduction. 1. Differentiation of species of spore-forming anaërobes by potentiometric technique. II. Differentiation of Lactobacilli of diverse origin, III, 52.

Gillespie, W. F., interpretation of acute

abdominal pain, III, 664.

Gillespie, W. H., psychiatric aspects of effort syndrome, III, 653.

Gillette, D. F., effect of thyroxine on incipient senile cataracts, 111, 504. See also Wiseman, J. R.

Gillette, L. A. See Anderson, Ernest. Gillette, R. H. See Eyster, E. E. See Eyster, E. E.

Gillhaussen, H. F. von. See Thiessen, P. A. Gilliam, W. F., Liebhafsky, H. A., and Winslow, A. F., dimethyl silicon dichloride and methyl silicon trichloride, II, 189.

See also Laubengayer, A. W., and Rochow, E. G.

Gillies, J., modern anæsthesia, III, 217.

Gilligan, D. R., Altschule, M. D., and Katersky, E. M., hæmoglobinæmia and hæmoglobinuria produced in man by intravenous injection of hæmo-globin solutions, III, 883.

See also Lowry, O. H. Gilliland, E. R., Bliss, H. L., and Kip, C. E., reaction of olefines with solid cuprous halides, II, 345.

Gillis, L. M. See Sappington, S. W.

Gillman, J., ovarian damage in mature baboons produced by progesterone and cestradiol benzoate, III, 509.

and Stein, H. B., inhibition of cestradiol benzoato by progesterone in baboon, III, 356.

Gilman, H., biological applications of organo-metallic compounds, III, 770.

Gilman, H., and Brown, G. E., anomalous metalation of triphenylamine, II,

and Cook, T. H., reaction of substituted phenanthrenes with lithium n-butvl, II, 14.

and Jones, R. G., metallic derivatives of acetomesitylene, II, 196. Relative reactivities of organo-metallie compounds. XXXVI. Reversible metalmetal interconversions involving lithium and magnesium. XXXVII. Reversible halogen-metal interconversion reactions. XXXVIII. Catalytic effect of organo-lithium compounds in interconversion reactions, II, 273.

and Kirby, R. H., relative reactivities of organo-metallie compounds. XXXIX. Addition reactions of organo-metallic compounds with conjugated systems,

II, 384. -

and Moore, F. W., relative reactivities organo-metallie compounds. XXXIV. Organo-metallie radicals, II, 274.

Van Ess, (Miss) M. W., Willis, H. B., and Stuckwisch, C. G., metallation of phenoxthionine, II, 54.

and Yablunky, II. L., unsymmetrical organo-bismuth compounds, II, 112. Reactions of organo-bismuth compounds in liquid ammonia, II, 113. Relative reactivities of organo-metallie compounds. XXXV. Colour tests for organo-bismuth and other organometallie compounds, II, 178. Preparation of organo-bismuth compounds from diazonium compounds, II, 207.

See also Langham, W. Gilman, M. H. See Belousov, V. A. Gilmour, D., anaërobic metabolism in larvæ

of Tenebrio molitor, L., III, 1040. Gilmour, J. R., normal hæmopoiesis in intra-uterine and neonatal life, III, 322. Developmental abnormalities of thymus and parathyroids, III, 348. Identity of Klippel-Feil syndrome and iniencephaly, III, 823. Giant-cell chronic arteritis, III, 977.

Gilpin, A. See Niven, R. B. Gilsanz, V., and Grande, F., hypovitaminosis-A and -C in soldiers in Madrid in 1938, III, 517.

and Larregla, N., pellagra and glossitis; blood-sodium and -potassium; treatment of pellagra with sodium chloride, III, 519.

Gilson, A. S., and Mills, W. B., single responses of motor units in consequence of volitional effort, III, 253.

Gilula, I. O., capacity for work in senility,

Gindin, L. G., Ambarzumian, R. S., and Beltschikova, E. P., corrosion of metals by non-aqueous solutions; action of ethyl alcohol on metals, I, 217.

Gingrich, N. S., analysis of liquid X-ray diffraction patterns, I, 195.

See also Gregg, R. Q.

Ginsberg, E. See Copley, M. J., and Marvel, C. S.

Ginsburg, D. See Jermolenko, N. F. Ginsburg, N., and Dieke, G. H., intensity measurements in molecular spectrum of hydrogen, I, 290.

Ginsburg, R. B. See Mokruschin, S. G. Ginzburg, E. A. See Galkin, V. S. Ginzburg, J. I., allene series. I. Preparation of allene hydrocarbons, II,

Ginzburg, M. B., and Katscherova, S. A., regulation mechanism of activation of tissue proteinases. II. Cathepsin, glutathione, and ascorbic acid in liver of normal rats and rats with hyperthyroidism, III, 705.

Ginzburg, V. L., electrodynamics of anisotropic medium, I, 444. Radiation of an electron moving in a crystal, I, 444.

Ginzler, A. M., and Jaffe, H. L., osseous findings in chronic renal insufficiency in adults, III, 769.

Giordano, A. S., and Eager, D., determination of bilirubin in blood-serum or plasma, III, 152.

States, M. N., and Sheard, C., improvements in the photelometer and its accessories, III, 235.

Giovambattista, A., and Nico, R., photometric determination of serum-proteins; application of the Greenberg-Mirolubova method, III, 729.

Giovanelli, R. G., solar eruptions, I, 309. Girdwood, A. I. See Grasset, E. Girgensohn, II. See Becker, W.

Giri, K. V., influence of vitamin-C on deactivation of enzymes by ultra-violet light, III, 921.

and Krishnamurthy, P. V., influence of purines, creatinine, and creatine on oxidation of vitamin-C, III, 287.

See also Krishnamurthy, P. V. Giridhar, P. D., psychotherapy in hysterical amblyopia, III, 90.

Giroud, A., and Santa, N., sexual variation in weight and ascorbic acid content of adrenal cortex and medulla, III, 1004.

Gisselsson, L., and Lindgren, G., importance of impurities in ethyl ether used for narcosis, III, 128.

Gisvold, O., constitution of celastrol. III., II, 18. Effect of adsorbents, precipitants, and oxidants on resin of Rhus toxico-

dendron, III, 383.

Gitman, E. B. See Plotnikov, V. A.

Gittleman, I. F., and Pincus, J. B., rickets, associated with dwarfism, glycosuria, ketonuria, and albuminuria, III, 380. Giuntini, J. See Levaditi, J. Givens, J. W. See Beeck, O.

Gjessing, R., pathophysiology of periodic catatonia. IV., III, 995.

Gjörup, E., hypophyseal nanism resulting from craniopharyngeoma, III, 96. Gjullin, C. M., Hegarty, C. P., and Bollen,

W. B., necessity of low oxygen concentration for hatching of Aedes mosquito eggs, III, 581.

Glading, R. E., ultra-violet absorption spectra of lignin and related compounds,

Gladischevskaja, K. A. See Goremikin, V. I.

Gladstone, R. J., and Hamilton, W. J., presomite human embryo, III, 823. Glagolev, V. P. See Jaroslav, S. J.

Glancy, E. A., and Howland, R. B., transplantation of bristle-bearing tissues in Drosophila melanogaster, III, 956.

Glanzmann, E., infectious reticulo-endotheliosis (Abt-Letterer-Siwe disease) and its relation to Schüller-Christian lipoid xanthomatosis, III, 122.

Steiner, H., and Keller, H., congenital afibrinogenæmia and fibrinopenia in children, III, 523.

Glaser, E. M., and McMichael, J., venesection and lung capacity, III, 84. Glaser, II., degradation of fatty acids, III,

1040.

Glaser, J., and Epstein, J., Winckel's disease, III, 557.

Glaser, L. F., artificial fever therapy, III, 531.

Glaser, N. M. See Sacks, J.

Glasgow, A. R., jun. See Mair, B. J.

Glass, H. G. See Pfeiffer, C.

Glass, S. J., Edmondson, H. A., and Soll, S. N., sex hormone changes associated with liver disease, III, 101.

Glassner, A. See Kimball, G. E. Glasstone, S., and Hammel, E. F., jun., simpler polypeptides. I. Dissociation constants of glycine, mono-, di-, tri-, tetra-, penta-, and hexa-glycylglycine and their esters. II. Kinetics alcoholysis of polyglycine esters, I, 167, 381.

See also Kimball, G. E., and Laidler, K.J.

Glaubiger, A., influence of temperature, dilution, and type of diluent on  $p_{\rm H}$ values of bacteriological media, III, 49. Standardisation of  $p_{\rm H}$  measurements with precision glass electrode at various temperatures, III, 483.

Glazebrook, A. J., and Thomson, S., pulse rate in acute juvenile rheumatism, III, 842. Heart murmurs in acute rheumatism, III, 974. Acute rheumatism and trauma, III, 1022.

Glazer, A. M., simplified Westergren sedimentation rate technique, 831.

Glazko, A. J., and Ferguson, J. II., inhibition of tryptases by heparin, III, 556. Kinetics of thrombin inactivation as influenced by physical conditions, trypsin, and serum, III, 727.

Glees, P., differentiation of brain and other tissues in an implanted portion of embryonic head, III, 156. Termination of optic fibres in lateral geniculate body, III, 177, 260, 661.

and Clark, W. E. LeG., termination of optic fibres in lateral geniculate body of monkey, III, 569, 660.

See also Weddell, G.

Gleiberman, E. J., transplantation of pre-served skin in skin tuberculosis, III,

Glenn, P. M., intestinal obstruction: results of treatment with use of intestinal intubation, III, 679.

See also Abbott, W. O.

Glenn, R. A., and Bailey, J. R., nitrogen compounds in petroleum distillates. XIX. Insolation from Californian petroleum, and synthesis, of 2:3:8trimethyl - 4 - ethylquinoline. Isolation of 2-methyl-8-ethylquinoline from Californian petroleum; proof of its structure by degradation and synthesis, II, 174.

and Bailey, J. R., [with Axe, W. N.], chromic acid oxidation of quinoline homologues; oxidation of Bz-ethylquinolines to quinolyl methyl ketones,

ÍI, 174.

Glenny, A. T. See Barr, M.

Glesne, L. R. B. See Rhodes, P. II.

Glick, A. See Peck, S. M. Glick, D., specificity of choline-esterase, II, 87. Enzymes of barley, III, 702.

Glicklich, E. A., and Sherman, D. S., toxic effects of sulphathiazole used in treatment of chancroidal infection, III,

Glickstein, J. See Hollander, F. Gliddon, G. H., aniseikonia, III, 92. 3---A

Gliszczynski, S. von, "isomorphism" of monazite and crocoite, I, 230.

Globus, J. II., pinealoma, III, 867. Glocker, R., and Sehaaber, O., mechanical and X-ray measurement of torsional

modulus of iron, I, 76. Glockler, G., and Edgell, W. F., fundamental frequencies of halomethanes. II.

Raman spectrum of fluoroform, I, 241. Rotational isomerism in alkyl halides, 242. Heat capacity of halomethanes, I, 405.

Edgell, W. F., and Leader, G. R., Raman effect of fluorodichloromethane, I, 241. and Sage, C., hindered rotation in halo-

genated ethanes, I, 291. See also Taylor, T. I.

Glotov, V., amphidiploid fertile form of Mentha piperita, L., produced by colchicine treatment, III, 404.

Glover, J., continuous measurement of transpiration of single leaves under natural conditions, 111, 817.

Gluchov, I. See Usanovitsch, M.

Glückmann, S. A., nature of lyophilic sols, I, 412. Glücksmann, A., and Spear, F. G., effect of

y-radiation on cells in vivo, 111, 45. Gluschakova, N. E., effect of exercise on

adenosine triphosphate content of muscle, III, 739.

Glushnev, V. E. See Gerasimov, M. M.Glynn, L. E., medial defects in circle of Willis and their relation to aneurysm formation, III, 8. Crystalline bodies in tunica media of middle cerebral artery, III, 81. Effects of sulphanilamide, sulphathiazole, and sulphapyridine on development of granulation tissue and their toxic action on striped muscle, III,

Gober, M. See Mayfield, C. R. Gochschtein, J. P., effect of anions on reduction of nitrate ion at a dropping mercury cathode, I, 379. Depression of maxima of polarographic curves, and displacement of the reduction potential of ions in curves connecting current density with voltage, 1, 379.

Godbert, A. L. See Belcher, R. Goddard, D. R. See Goodwin, R. H. Godden, W. See Duckworth, J.

Goddhart, R. S. See Wortis, H.

Godeau, J. See Lande, P.
Godfrey, D. W. See Hnrd, C. B.
Godlevski, M. N., kurnakovite, a new
borate, I, 227.
Godlove, I. H., and Laughlin, E. R.,

psychology of colour, III, 12, 260. Godnev, I., Pajuchina, A., and Sverdlin, A.,

thermodynamic functions of acetone, I,

Goebel, W. F., immunity to experimental pneumococcal infection with antigens containing saccharides of synthetic origin, 11Ĭ, 52.

See also Adams, M. H., and Reeves, R. E.

Goeckerman, W. H., and Wilhelm, L. F. X., arsenic as cause of mucous membrane cancer, III, 112.

Goepfert, G. J., mechanism of dehydro-genation by Fusarium lini, Bolley. XIX. Dehydrogenation of higher primary and secondary alcohols, III, 924.

Goeppert-Mayer, M., rare-earth and transuranic elements, I, 443.

Görtz, G., ascorbic acid excretion in urine of healthy and febrile children, III, 119. Goese, M. A. Sec McElvain, S. M.

Goeters, W., influence of water content of nutrient medium on growth of bacteria, III, 49. Pathogenesis of acetonæmic vomiting, III, 380. Growth of bacteria in raw and boiled breast milk, III, 451.

Götz, G., premature birth, III. 359.

Goetz, H. See Freudenberg, E. Goffart, M. See Bacq, Z. M. Gofman, J. W. See Seaborg, G. T.

Gogte, G. R., β-arylglutaconic acids. VI. C-Benzovlation of β-arylglutaconic anhydrides and thermal decomposition of C-acyl-β-arylglutaconic anhydrides, II, 103.

Gohar, H. A. F., weighing living marine animals, III, 406.

Goheen, G. E., synthesis of multicyclopentyls, II, 163.

Gobr, H., titrimetric determination of galactose and fructose in urine, III,

Goin, L. S., Crossan, J. W., and Jellen, J., low-voltage contact Reentgen therapy, 111, 792.

Golan, II. G., snake venom and allergy, III, 813.

Golay, J., and Wyss-Chodat, F., isolation of yeasts in pure culture from diseased tissues, III, 706.

Golberg, L., adrenal cortical hormones, 111, 438.

and Robinson, (Sir) R., synthesis of substances related to sterols. XXXVII. Derivatives of chrysene, II, 365.

Gold, A., Ebendorf, H., and Lattimore, J. L., determination of blood-chloride by mercurimetric titration of tungstic acid filtrates, III, 971.

See also Pusitz, M. E.

Gold, II., and Cattell, M., status of bio-assay of digitalis group, III, 786.

Cattell, M., Kwit, N. T., and Kramer, Milton, are results of U.S.P. frog method for assay of digitalis applicable to man? III, 911.

and Hampil, B., results of skin tests following immunisation against encephalomyelitis (Eastern and Western types) with bivalent vaccines of chick embryo origin, III, 633.

See also Cattell, M., Kwit, N. T., Modell, W., and Travell, J.

Goldacre, R. See Albert, A. Goldberg, E., histological responses of cabbage plants grown at different levels of nitrogen nutrition to indolylacetic acid, III, 150

Goldberg, H. K., and Schlivek, K., necrosis of cornea due to vitamin-A deficiency, III, 257.

Goldberg, I. See Lida, E.

Goldberg, L., and Levy, L., vitamin-Ccontent of fresh, canned, and dried guavas, III, 1037

See also Menzel, D. II.

Goldberg, L. G., vesical calculi in infancy, III, 885.

Goldberg, M. W., and Studer, S., steroids and sex hormones. LXVIII. D-Homoœstrone, II, 257.

Goldberg, S., contact glasses as an aid in straightening the eyes, III, 862.

Widerman,  $A.\ H.$ , and Friedman,  $P.\ S.$ congenital mesenteric cyst associated with failure of rotation of intestinal tract, III, 154.

Goldberg, S. A., primary splenic neoplasms, III, 282.

Goldberg, V., changes of leucocytes in urine, III, 515.

Goldblatt, H. See György, P.

Goldblatt, L. A., and Croup, A. H., atomic structure, I, 25.

Goldbloom, A. See Segall, H. N. Goldburgh, H. L., and Gouley, B. A., postpubertal menorrhagia and its possible relations to thrombocytopenic purpura hæmorrhagica, III, 74.

Goldby, F., normal histology of thalamus in Trichosurus vulpecula, III, 431.

Golden, R., abnormalities of small intestine in nutritional disturbances [and their X-ray appearances], III, 679.

Goldfarb, A. E., treatment of psoriasis with lemon citrin (vitamin-P), citrin lemonade, and ascorbic acid, III, 698.

Goldfarb, A. R., aryl and alkyl ethers of β-methylcholine, II, 353. Choline tolyl

ethers, II, 360.

Goldfarb, J. L., and Kondakova, M. S., syntheses of carbaza-condensed systems from 2- and 6-aminonicotines. III. Reaction of bromopyruvic ester with 2- and 6-aminonicotine. IV. Condensation of 2-aminonicotine with acctoacetic ester, II, 76.

See also Smorgonski, L. M.

Goldfarb, IV., and Wortis, J., availability of sodium pyruvate for human brain oxidations, III, 567.

See also Himwich, H. E., and Wortis, J. Goldfelder, A., effects of irradiation on proliferation and metabolic processes of normal and malignant tissues. IV., III, 69.

Goldhaber, G. See Doljanski, L.
Goldhaber, M. See O'Neal, R. D.
Goldhamer, S. M., Sturgis, C. C., and
Bethell, F. H., blood, III, 958.

Goldie, E. A., clinical manifestations of oxygen lack, III, 981.
Goldin, H. S. See Baldwin, F. M.

Golding, N. S., gas requirements of moulds. II. Oxygen requirements of P. roqueforti in absence of carbon dioxide. III. Effect of various concentrations of carbon dioxide, III, 472.

Goldman, A. See Price, C. C.

Goldman, L., ulcerative reaction from gentian-violet in treatment of impetigo contagiosa, III, 294.

See also Osborne, S. L.

Goldman, M. See Rambar, A. C. Goldman, S. See Brody, H. Goldman, S. F. See Cinberg, B. L.

Goldmann, B. A. See Guy, IV. H.

Goldmann, F., influence of mineral salts in diet on milk, III, 22. [Potassium for

infantile eczema], III, 132. and Stein-Freiberg, M., differential diagnosis of hepatolicnal symptom-complex in Gaucher's disease, III, 73.

Goldovski, A. M., and Podolskaja, M. Z., localisation of chemical constituents in the plant cell, III, 636.

Goldring, W., Chasis, H., Ranges, H. A., and Smith, H. IV., relations of effective renal blood flow and glomerular filtration to tubular excretory mass in normal man, III, 15. Glomerular dynamics in normal human kidney, III, 15.

Goldschmidt, J. See Doljanski, L. Goldshine, A. D. Sec Ayman, D.

Goldstein, B. I., and Katscherova, S. A., interrelationship between glutathione and ascorbic acid in animal tissue, III, 685.

and Knischenko, P. G., ascorbic acid oxidation in tissues of animal organism in an acid medium, III, 685.

Goldstein, B. I., and Volkenzon, D. V., ascorbic acid oxidation in animal tissues, III, 601. Effect of iron on oxidation of ascorbic acid in animal tissues, III, 893.

and Ziperovitsch, A. S., synthetic effect of papain, III, 705. Aldehyde group of cathepsin, III, 706.

Goldstein, H., and Jaquet, A., 4:5-dinitro-

2-methoxybenzoic acid, II, 195.

Goldstein, L., Bose-Einstein condensation, I, 236.

Goldstein, M. S., cranial deformation among Texas Indians, III, 158.

Goldsworthy, E. See Greisheimer, E. M. Goldsworthy, N. E. See Sullivan, H. R. Goldwater, L. J., disturbances in blood following exposure to benzole, III, 491. and Tewksbury, M. P., recovery follow-

ing exposure to benzene, III, 791. Golendeev, V. P., allyl esters of carboxylic acids, II, 239. Hydrogenation of allyl crotonate, fumarate, and oleate, with platinum and palladium catalysts, II, 279.

Golla, Y. M. L., and Reiss, M., adrenocorticotropic action [of anterior pituitary], III, 1007.

Goloborodko, T. A., angular distribution of photoneutrons (Ra-Th + Be), I, 440.

Golomb, I. M. See Henshaw, P. S.
Golombik, M. S., Petin, N. N., and Juchnovskaja, O. P., passivity of metals. II. Periodical phenomena at the boundary iron-nitric acid solution, I, 470. Golova, O. P., and Nikolaeva, J. J., specific

viscosity and mol. wt. of cellulose, I, 295. Golovati, R. N., effect on solubility of precipitates of ions of same charge in absence of a common ion, I, 115.

Golovskaja, K. S. See Belitzer, V. A. Golovtschanskaja, A. P., electrolytic hydrogenation of dimethylvinylacetylenylcarbinol, II, 26.

Golstein, D. H., and Graef, I., influence of sulphanilamide and sulphapyridine on experimental pneumococcic pneumonia in rats, III, 124.

Golubitzkaja, N. N. See Zeidler, I. I. Golubtschenko, N. P. Sec Vilnianski, J. E. Gomez, E. T. Sec Zalesky, M.

Gomori, G., distribution of phosphatase in normal organs and tissues, III, 388. Observations with differential stains on human islets of Langerhans, III, 723. Distribution of acid phosphatase in tissues, III, 1063.

Gonce, J. E., jun. See Anderson, H. D. Gonikberg, M. G., regular solutions of gases in liquids, I, 80.

and Fastovski, V. G., solubility of gases in liquids at low temperatures and high pressures. II. Solubility of helium in liquid nitrogen at 78.0— 109.0° K. and pressures up to 295 atm. IV. Solubility of helium in liquid methane at 90.3° and 106.0° K. and pressures up to 160 atmospheres, I, 408.

See also Fastovski, V. G. González, R. See Castex, M. R.

González Barredo, J. M., autocatalytic character of the decomposition of the hypochlorite ion, I, 303.

See also Rivoir, L. Gooch, M. E. See Rogers, E. S. Good, W. H. See Sharp, E. A. Goodale, R. H. See McLeod, C. E. Goodell, H. See Wolff, H. G. Gooden, E. L., power compactor for air-

permeation experiments, 1, 433.

Goodeve, C. F. See Broda, E. E.

Goodhue, L. D., and Haller, M. L., detection and estimation of dihydrorotenone in hydrogenation products of rotenone.

Goodman, A. W. See Garber, H. J.

Goodman, C. See Bell, K. G.

Goodman, L., and Lih, B. J., effect of dilantin on metrazol convulsions in mice and rats, III, 914.

Goodman, L. S. See Geiger, A. J. Goodman, M. H., and Arthur, R. D., fixed eruptions [from sulphanilamide], III, 694.

Goodman, M. J., paroxysmal flutter of diaphragm simulating coronary occlusion,

Goodpastor, W. E. See Callomon, V. B. Goodpasture, E. W., developing egg as culture medium, III, 228. Pathology of virus disease, III, 934.

Goodrich, H. B., and Hedenberg, M., cellular basis of colours in Bermuda parrot fish, III, 641.

Goodrich, J. P. See Evans, T. C.
Goodson, W. H., and Sheard, C., photelometric determination of bilirubin in urine with diazobenzenesulphonic acid, III, 109.

Goodspeed, G. E., dilation and replacement dykes, I, 435.

Goodwin, C. W., a.c.-powered pH set, I,

Goodwin, J. E., Kerr, IV. E., and Lawson, F. L., bio-electric responses in metrazol and insulin shock, III, 345

Goodwin, R. H., and Goddard, D. R., oxygen consumption of isolated woody tissues, III, 59.

Goodwin, T. W. See Henry, K. M. Goodyear, H. M., treatment and complications of common cold, III, 919.

Goormaghtigh, N., endocrine cells in arteriolar walls of kidney and their behaviour in ischæmia, III, 201. Histological changes in ischæmic kidney, III,  $20\bar{2}.$ 

Goos, F., electro-optical properties of broken-down zinc sulphide-copper phosphors, I, 28:

Gopalarao, G., and Murty, K. S., photo-sensitisation by solids. II. Photosensitised oxidation of ammonia in aqueous solution with titania as the photosensitiser, I, 422.
Gorbatschev, S. V., and Schpitalski, E. E.,

preparation of tervalent manganese, I, 424.

Gorbatschevskaja, V. G. See Sklovskaja,

Gorbman, A., goldfish for assay of thyrotropic hormone, III, 351.

Gorbunov, N. I., significance of forms of

union for desorption of cations, I, 206. Gordon, A., value of convalescent serum in treatment of cerebral complications following acute infectious diseases, III, 859.

Gordon, Alvin. See Burton, M. Gordon, A. R. See Hollingshead, E. A.

Gordon, A. S., antihormone production to crude and purified pregnant mare serum preparations, III, 760.

See also Levenstein, I., and Vollmer, E. P.

Gordon, B. E., and Schischlovski, A. A., photoluminescence of solutions of thal-

fium salts, I, 320.

Gordon, B. L., evolution of biological pathology from ancient animistic beliefs, ÎII, 1065.

Gordon, C. A., and Rosenthal, A. H., sulphanilamide therapy in severe puerperal infection, III, 609.

Gordon, E.J. See Mainland, D.

Gordon, H., and Knighton, H. T., experimental measles, III, 631.

Gordon, H. A., sensitised fluorescenco (chemifluorescence) of benzene, I, 363.

Gordon, H. H., and McNamara, H., fat excretion of premature infants; effect on feeal fat of decreasing fat intake, III, 1016.

See also Levine, S. Z.

Gordon, H. K., and Chambers, R., particle size of acid dyes and their diffusion into living cells, III, 366.

Gordon, H. McL., anthelmintic efficiency of phenothiazino against immature Hæmonchus contortus, III, 528.

See also Lipson, M.

Gordon, J., inhibition of anaphylactic reaction by Congo-red, III, 76.

and McLeod, J. W., sulphonamides and antisera in experimental gas gangrene, III, 610.

Gordon, J. E., and Heeren, R. H., epidemiology of mumps, III, 55.

and Janney, J. H., antistreptolysin content of sera of normal infants and children, III, 932.

Gordon, M. B., ophthalmological aspects of pregnancy, III, 89. Ophthalmological aspects of thyroid malfunction, III, 90. Ophthalmological aspects of thyroid medication, III, 90.

Solomon, N. H., and Pearlman, S. F., sulphanilamide and scarlet fever antitoxin in treatment of scarlet fever, III,

1046.

Gordon, W. E., and Spinks, J. W. T.,

nitroxyl perchlorate, I, 56.

Gordy, W., spectroscopic evidence for hydrogen bonds: proton-attracting properties of liquids. IV., I, 239, 291. and Stanford, S. C., spectroscopic evi-

dence for hydrogen bonds: protonattracting properties of liquids. III., I, 239.

See also Stanford, S. C.

Gore, R. C. See Buswell, A. M. Goremikin, V. I., and Gladischevskaja, K. A., oxidation processes in platinum

oxalates, I, 217.

Gorenbein, E. J., physico-chemical investigation of solutions of aluminium bromide and its complex compounds in several organic solvents, I, 251.

and Slavutzkaja, I. M., offect of apolar compounds on conductivity of halides of aluminium in nitrobenzene and ethyl bromide, I, 85.

Gorev, N. N., and Budnitzkaja, R. M., experimental arterial hypertension, III, 979.

Gorin, M. H., valency effect in electrophoresis of proteins computed by the Gronwall-La Mer theory, I, 210. See also Abramson, H. A.

Gorisontov, P. D., changes in sterols during diseases of cerebrum, III, 744.

Gorlitzer, V., prontosil in dysentery, III,

Gorman, M., interpretation of  $p_{\rm H}$ , I, S4. Gornaja, V. J. See Vlasiuk, P. A. Gornall, A. G., and Hunter, A., colorimetric

determination of citrulline, III, 715. Gorochovski, J. N., Kriukov, A. A., and Fedotova, V. I., optical sensitisation of photographic emulsions. I. Adsorption in optical sensitisation, I, 423.

Gorochovski, J. N., Smirnov, A. J., and Fedotova, V. I., optical sensitisation of photographic emulsions. II. Spectral properties of emulsions consisting of various silver halides, I, 423.

Gorodetzkaja, A., study of thin layers of organic substances at the mercury-solution interface by capacity measure-

ments, I, 466.

Gorodetzky, S. See Leprince-Ringuet, L. Gorter, C. J., measurement of nuclear magnetic moments with radio waves, I,

Gorter, E. W. See Ketelaar, J. A. A. Gorter, E. W. See Retelaar, J. A. A.
Gortner, R. A. See Greenwood, F. L.,
and Painter, E. P.
Gorvin, J. H. See Ayling, E. E.

Goss, G. C. L., Farmer, F. A., and McFarlane, W. D., comparison of dark adaptation (biophotometer) tests on French and English school children in Quebec community, III, 346.

Goss, H. See Cameron, H. S., and McElroy, L. IV.

Goss, M. J. See Phillips, Max.

Gostev, V. S., apparatus for research with isolated organs, III, 715.

Gothan, W., [German]-brown coals, I, 232. Gotô, H., determination of silicic acid, I, 127. Fluorescence analysis. V. Detection [of metals]. VII. Rhodamine B and fluorescein as fluorescence indicators in oxidimetric titrations. VIII. Spectroscopic study of fluorescence tests, I, 218,

Goto, Kakuzi, and Shishido, H., sinomenine. XLVIII. Degradation of sinomenolquinone dibenzoate to 2:3:3':4'-tetra-methoxydiphenyl, II, 321.

Goto, Kokiti, and Titani, T., studies of chemical properties of carbohydrates by means of heavy oxygen. I. Exchange reactions of oxygen between monoses and water, II, 313.

Goto, Rempei. See Kimata, S.

Gotô, Ryoiti, osmosis. II. Salt solutions, I, 460.

Gotschalk, H. C. See Halford, F. J. Gottebüren, H., prophylaxis and treatment of traumatic tetanus, III, 43.

Gottfried, S. P. See Natelson, S. Gottlich, S. F. See Fox, F. W.

Gottlieb, B., ætiology of dental caries, III,

Gottlieb, D., Caldwell, C. G., and Hixon, R. M., action of formic acid on starch, II, 121.

Gottlier, P. M. See Urbach, E. Gottsch, L. G. See Emery, F. E. Gotzl, F. R., and Dragstedt, C. A., effect of thyroidectomy and of experimental hyperthyroidism on histamine content of rat tissues, III, 263.

Goubeau, J., and Schneider, (Frl.) V. von, analytical investigation of hydrocarbon mixtures by Raman spectra; detection of paraffins and olefines with straight and branched chains, II, 386.

Goudchaux, S. See Javillier, M. Goudsmit, A., and Binger, M. W., gum acacia for nephrotic syndrome, III, 515.

and Keith, N. M., inorganic sulphate in serum and its renal clearance, III, 202. Goudsmit, J. See Westenbrink, H. G. K. Gough, J., pneumoconiosis in coal trimmers,

III, 43. Gouguell, B. M., structure of surface layers of ordinary solutions, I, 410.

Gould, B. S., and Tytell, A. A., physiology of Fusaria, III, 1064.

Gould, I. A., disappearance of added glutathione in milk, III, 450. Reducing system of milk, III, 456. Protective influence of glutathione on copperinduced oxidation of ascorbic acid in milk, III, 456.

Gould, J., and Morgan, C., hearing in rat of high frequencies, III, 866

Goulden, F. See Badger, G. M. Gouley, B. A., and Anderson, Edward, chronic dissecting aneurysm of aorta simulating syphilitic cardiovascular disease, III, 422.

See also Goldburgh, H. L.
Gover, M. See Collins, S. D.
Govier, W. M., and Greer, C. M., effect of thiamin in shock induced by hæmorrhage, III, 1049.

See also Butler, T.C.Govindachari, T.R., synthesis of dlanalobine O-methyl ether (dl-5:6-methylcnedioxy-2-methoxynoraporphine), II,

Govorov, N. P., electrometric method of determining carbohydrates and reducing substances of machorka, III, 62.

Gowan, L. R., and Masten, M. G., agenesis of corpus callosum, III, 343.

Goyan, F. M., and Daniels, T. C., salts of atropine, ephedrine, adrenaline, and procaine, II, 308.
Graby, I. See Grüninger, U.
Grace, E. J., behaviour of tumours in tissue

culture at 24 hours, III, 516.

Grace, N. H., responses of plant cuttings to treatment with naphthyl-acids and their potassium salts in a talc carrier, III, 60. Effects of phytohormone, potassium nitrate, and mercuric ethyl bromide on germination and early growth of wheat, III, 1084.

and Farrer, J. L., effects of talc dusts containing phytohormone, nutrient salts, and an organic mercurial disinfectant on the rooting of dormant Taxus cuttings, III, 402.

Gradle, H. S., and Sugar, H. S., chamber angle. III. Clinical method of gonio-metry, III, 10.

Grady, H. G. See Shimkin, M. B.

Graef, I. Sce Golstein, I.

Graffagnino, P., and Seyler, L. W., epidural anæsthesia in obstetrics, III, 218.

Grafflin, A. L., histology of adult human pancreas (autofluorescence, fat, and pigment), III, 5. Histology of thyroid and parathyroid glands in Gorilla beringei, III, 68. Thyroid and parathyroid glands of baboon, III, 159.

Gragerova, R. B., immunobiological properties of aged subjects and sedimentation reaction of red cells, III, 7

Graham, C. H. See Riggs, L. A.

Graham, G., rôle of liver in diabetes mellitus, III, 264. Causes of diabetes mellitus. III, 264.

Graham, H. T., and O'Leary, J. L., fast central fibres in fish, III, 983.

Graham, J. D. P., [pharmacological] action of phenylfurylethylamine and analogous bases, III, 381.

and Lazarus, S., actions of methylatropine nitrate (eumydrin), III, 127.

Graham, J. H., and Bitto, L. M., [pharmacognosy of Nepeta glechoma, III, 919. Graham, J. S. See Scott, V. B.

Graham, M., sense of hearing in fishes, III.

Graham, R., Hester, H. R., and Henderson, J. A., coal-tar pitch poisoning in pigs, III, 42.

Sampson, J., and Hester, H. R., results of feeding zine to pregnant mares and to mares nursing foals, III, 41.

Graham, R.J. See Danforth, D.N.Graham, V. E., and Hastings, E. G., filmforming yeasts. I., Ill, 924.

Grahame, D. C., electrical double layer at a mercury surface. I. Measurement and interpretation of results, I, 338.

Grainger, J., virus and vital organisation, III, 145.

Gralnik, A., eyegrounds of patients with functional psychoses given insulin-shock therapy, III, 504.

Grambard, M., uterine respiration, cytochrome oxidase, and copper, III, 533.

Grand, J. A. See Baernstein, H. D. Grande, F. See Gilsanz, V.

Grandpierre, R. See Franck, C. Granick, S. See Michaelis, L.

Granskaja, T. A., and Kaliteevskaja, A. I., interaction of cellulose acetate with organic solvents, I, 112.

Grant, F. C. See Weinberger, L. M. Grant, G. A. See Strean, L. P. Grant, G. C., formalin-phenol-thionin

stain for nervous tissue, III, 827.
Grant, H. M. See Spies, T. D.
Grant, H. W., squint in relation to loss of

vision, II, 747.

Grant, J. M. See Spies, T. D. Grant, M. W. See Waller, H. Grant, W. M. See Hanna, O. D.

Granville, W. C. See Nickerson, D. Grasedyck-Renner, L. See Bischoff, H.

Grass, A. M. See Rosenblueth, A. Grasset, E., and Girdwood, A. I., active tetanus immunisation and combined tetanus-typhoid immunisation with

tetanus anatoxin and typhoid endotoxoid vaccine, III, 932.

and Schaafsma, A. IV., venom of " boomslang" (Dispholidus typus), III, 918. Gratia, A., antagonism of alkaline-earth

ions to toxicity of sodium and potassium ions in bacteriophages, 111, 934. Toxicity of sodium and potassium ions towards bacteriophage, III, 934.

Gratschev, K. J., electrolytic reduction of ferric sulphate in presence of titanium sulphate. IV. Nature of cathode polarisation, I, 121.

Grattan, J. F., and Jensen, H., effect of pituitary andrenocorticotropic hormone and of various adrenal cortical principles on insulin hypoglycæmia and liverglycogen, III, 97.

Gran, C. A., stable solution of copper ammonium sulphate suitable for intra-

venous use, III, 143.

Graubard, M., and Pincus, G., oxidation of

œstrogens by phenolases, III, 676. Grauer, R. C., Beall, C. F., and Wilson, C. R., endometrial response to diethylstilbæstrol in radium-induced menopause, III, 357.

See also Saier, E., and Wilson, D.

Grauhan, M., treatment of cryptorchidism, III, 102.

Graves, A. C. See Bronssard, L. Graves, L. J. See Sandels, M. R.

Graves, W. N., pulmonary embolism, III, 562.

Gray, A. W., triplication of large intestine, III, 318.

Gray, E. Le B., structure of kephalin, II,

Gray, E. Le B., Morgareidge, K., and Cawley, J. D., intestinal absorption of vitamin-A in the normal rat, III, 23.

Gray, H., and Tainter, M. L., colloid laxatives available for clinical use, III,

Gray, I., and Greenfield, I., treatment of lead poisoning, III, 917.

and Walzer, M., absorption of unaltered protein from abnormal intestinal tract, III, 879.

Gray, J. S., and Adkison, J. L., effect of inorganic ions on gastric secretion in vitro, III, 1014.

Adkison, J. L., and Zelle, K., in vitro secretion of acid by gastric mucosa of

frog, III, 361. Harris, S. C., and Wieczorowski, E. differentiation of urogastrone and pituitrin, III, 876.

Wieczorowski, E., and Ivy, A. C., inhibition of gastric secretion in man with urogastrone, III, 677.

See also Lowe, E. R.

Gray, L. H. See Crabtree, H. G. Gray, M. E., supravital study of cells of subcutaneous tissue in guinea-pigs, following injections of synthetic triglycerides, III, 159.

Gray, P. H. H., staining of bacteria and fungi, III, 390. Solution for staining differentially the spores and vegetative cells of micro-organisms, III, 535.

Gray, S. H. See Gruenfeld, G. E. Graydon, J. J. See Christie, R.

Grayman, I. Seo Nelson, N. Graymore, J., cyclic methyleneimines. III. Hydrolysis of quaternary compounds; preparation of secondary amines, II, 92.

Grayson, J., cutaneous ligaments of digits, III, 153.

Grayzel, D. M., and Friedman, H. H., myoblastoma of the thoracic wall, III, 591.

Greathouse, G. A. See Rigler, N. E. Greaves, J. E. See Hervey, R. J.

Grebentschikov, I. V., work of the State Optical Institute on structure of glass,

Grebinnik, L. J., effect of acidic and basic diets on animal organism. V. Effect on change in weight of rabbits during incomplete starvation. VI. Calcium and phosphorus in bones of rabbits maintained on acidic or basic diets, III, 774.

See also Ribak, P. J.

Grebinski, S. O., vitamin-C and oxidation enzymes in high mountain plants, III, 939.

Grechnev, M. A., and Eroschevski, I. G., order of reactions of hydrogenation and dehydrogenation, I, 421.

Greeley, P. O., and Drury, D. R., glucose utilisation of hepatectomised diabetic rabbits, III, 380.

See also Barnes, R. H., and Martin, H. E.

Green, A. G., and Coplans, M., therapeutic product of sulphanilamide class, III,

Green, A.J. See Skinner, G.S.

Green, C. A., antistreptolysin O titre in relation to acute rheumatic fever, III, 1071. Effect of prontosil therapy on antistreptolysin O titre in rabbits during immunisation, III, 1071.

Green, D. E., Herbert, D., and Subrahmanyan, V., carboxylase, III, 533.

Knox, W. E., and Stumpf, P. K. [with Oncley, J. L.], flavoprotein from yeast; ultracentrifuge analysis, III,

Westerfield, W. W., Vennesland, B., and Knox, W. E., pyruvic and a-ketoglutaric carboxylases of animal tissues. ĬII, 922.

Green, F. O. See Hurd, C. D.

Green, H. D., and Gregg, D. E., relationship between differential pressure and blood flow in a coronary artery, III, 170.

See also Gregg, D. E.

Green, J. B., Paschen-Back effect. VII. and VIII., I, 93, 438.

Bowman, D. W., and Hurlbnrt, E. H., Zeeman effect of krypton, I, 66. Zeeman effect of xenon, I, 93.

Green, L. S. See Ross, W. F.

Green, M., spectra of Cd iv, In v, and Sn VI in isoelectric sequence Rh I to Sn VI. I, 393.

Green, M. IV., mechanism of vasomotor reversal [by drugs], III, 844. Irritant effect of aloin, III, 912.

Green, N. K., and Wardle, R. A., cultivation of tapeworms in artificial media. III, 1022

Green, R. G., Carlson, W. E., and Evans, C. A., deficiency disease of foxes produced by feeding fish; B<sub>1</sub>-avitaminosis analogous to Wernicke's disease of man, III, 776.

and Evans, C. A., deficiency disease of

foxes, III, 25.

Green, S. J., estimation of unsaturated hydrocarbons by bromine addition, IÌ, 157.

and Nash, A. W., catalytic aromatisation and isomerisation of ββδ-trimethylpentane, II, 309.

Green, W. P., jun. See Davis, T. L. Greenbaum, F. R., and Peters, A. F., organic thorium compound for X-ray diagnosis, III, 46.

See also Schaffer, C. F. Greenbanm, S. S., local anaphylaxis after histaminase, III, 313.

Greenberg, B. See Greene, D., Greenwald, H. M., and Lewis, J. M.

Greenberg, D., toxic manifestations following use of sulphanilemide, III, 908.

Greenberg, D. M., Campbell, W. W., and Murayama, M., mineral metabolism studied with the aid of artificial radioactive isotopes. V. Absorption, excretion, and distribution of labelled sodium in rats maintained on normal and low-sodium diets, III, 33.

See also Boelter, M. D. D., Copp. D. H., Kleiber, M., and Winnick, T.

Greenberg, II. See Whitby, G. S. Greenberg, L. A. See Haggard, H. W. Greenberg, L. D., and Rinehart, J. F.,

stability of ascorbic acid in blood, III, 26.

Greenberg, R., and Popper, H., demonstration of vitamin-A in retina by fluorescence microscopy, III, 999.

See also Popper, H. Greenberg, S. M. See Fraps, G. S.

Greenblatt, I. J., guanidinuria, III, 366. Greenblatt, R. B., ruptured human follicle

with ovum in situ, III, 871. and Pund, E. R., action of gonadotropins,

111, 873. Greenburg, L., single colony isolation of anaërobes, III, 1065.

Greenburg, R. B., and Aston, J. G., g-bromo-sec.-alkyl ketones. II. Rea-bromo-sec.-alkyl ketones. action of γ-bromo-γ-methylbutan-β-one with magnesium methyl iodide, II,

See also Aston, J. G.

Greenburgh, J. E. See Ratner, B. Green, A. M., iodine and cholesterol metabolism in myxædema, Ill, 570.

Greene, B. L. See Bulley, K. G.

Greene, C. H., liver and biliary tract, III,

Greene, D., Barenberg, L. H., and Greenberg, B., effect of irradiation of air in ward on incidence of infections of respiratory tract, III, 800.

and Greenspan, L., undesirable effects following intranasal use of ephedrine in infants and children, 111, 1048.

See also Barenberg, L. H.

Greene, E. S., and Parks, G. S., glass. XVII. Thermal conductivity of glassy and liquid glucose, I, 249.

Greene, J. See Bonner, J.
Greene, J. A., effect of belladonna on appetite of patients with obesity and other diseases, III, 381.
and January, L. E., pitressin tannate in

oil for diabetes insipidus, III, 264.

and Swanson, L. W., alteration glucose tolerance in patients with disease of pituitary, thyroid, and adrenal glands by changes of diet, III, 186. Psychosis in hypoparathyroidism, III, 572.

Swanson, L. IV., and Jacobs, C. A., healing of wounds in diabetics, III,

See also Swanson, L. W.

Greene, K. T., and Morgan, W. R., system sodium disilicate-barium disilicate, I, 371.

Greene, R., androgen and pregnanediol excretion in hypertrichosis, III, 195.

Greene, R. A., and Breazeale, E. transient positive serological tests for syphilis, III, 476.

See also Breazeale, E. L.

Greene, R. L., model mouse cage, III, 315.

Greene, R. R., and Burrill, M. IV., twentyfour-hour response to androgens in immature male rat, III, 354. Effects of large amounts of androgen on testes of prepuberal rat, III, 760.

and Harris, S. C., androgens and uterine weight in immature rat, III, 575.

See also Burrill, M. W., and Wells,

Greenfield, A. D. M., and Jones, E. I., phenylhydrazine and Price-Jones curves in polycythæmia rubra vera, III, 725.

Greenfield, I. See Gray, I. Greenfield, M. A., energy production in red giants, I, 443.

Greengard, H., and Stein, I. F., jun., assay of secretin, 111, 582.

Stein, I. F., jun., and Ivy, A. C., quantitative aspects of pancreatic response to secretin, III, 879.

Greengard, J., Raycraft, W. B., and Motell, W. G., Streptococcus viridans sepsis neonatorum with meningitis: recovery following sulphapyridine, III,

Greenham, C. G. See Wilkinson, T. Greenleaf, C. A., [determination copper, I, 387. of]

Greenspan, L. See Barenberg, L. H., Greene, D., and Lewis, J. M.

Greenstein, J. L., spectrum of v Sagittarii, I, 309.

Greenstein, J. P., thiol groups of scrumalbumin, serum, and milk, III, 204. and Jenrette, W. V., chemical studies on

components of normal and neoplastic tissues. I. Viscosity and streaming birefringence of sodium thymonucleate. II. Nucleoprotein fraction of normal animal liver, III, 453. Depolymerisation of thymonucleic acid by an enzyme system in normal and cancerous hepatic and mammary tissues and in milk and sera, III, 1028.

Thompson, J. W., and Jenrette, W. V. chemical studies on components of normal and neoplastic tissues. III. Composition and amphoteric properties of nucleoprotein fraction of Jensen

rat sarcoma, III, 589.

Turner, F. C., and Jenrette, W. V., chemical studies on components of normal and neoplastic tissues. IV. Melanin-containing pseudoglobulin of malignant melanoma of mice, III, 589.

Greenwald, II. M., treatment of thromboevtopenic purpura, III, 833.

and Greenberg, B., treatment of Sydenham's chorea with nirvanol, III, 465.

Greenwood, A. W. See Drummond, J. C. Greenwood, D. A. See Urbain, W. M. Greenwood, F. L., and Gortner, R. A.,

reaction of ethyl glycinate hydrochloride with primary, secondary, and tertiary Grignard reagents, II, 244.

Greep, R. O., and Staveley, H. E., "mammogen," and treatment of spayed hypophysectomised rats with lipin extracts of cattle pituitary, III,

Van Dyke, H. B., and Chow, B. F., use of anterior lobe of prostate in assay of metakentrin [pituitary interstitial cell-stimulating hormone], III, 1007.

See also Chow, B. F., and Hellbaum, A. A.

Greer, C. M. See Butler, T. C., and Govier, W. M.

Greey, P. H. See Stecker, J. F. Gregg, C. C. See Briggs, T. R. Gregg, D. C., and Nelson, J. M., action of tyrosinase on quinol, III, 47. Tyrosinase, III, 47. Comparison of activities of tyrosinase towards phenol and p-cresol, III, 47.

Sec also Boyd, IV. C., and Conn, J. B. Gregg, D. E., and Green, H. D., effects of viscosity, ischæmia, cardiac output, and aortic pressure on coronary blood flow measured under constant perfusion pressure, III, 248. Registration and interpretation of normal phasic inflow into left coronary artery by improved differential manometric method, III, 248.

See also Green, H. D.

Gregg, E. C., jun., optical method for measurement of ultrasonic absorption, 1, 223.

Gregg, R. O. See Dublin, W. B.

Gregg, R. Q., and Gingrich, N. S., comparison of use of crystal-reflected and filtered X-rays in liquid diffraction patterns, I, 30. Diffuse scattering of X-rays by rock-salt, I, 293.

Grégoire, C., lymphocytes and lymphoepithelial symbiosis in thymus, III,

Gregory, A. S. See Wolfrom, M. L.

Gregory, K. K., West, E. J., and Stevens, R. E., serum and sulphanilamide in meningococcal meningitis, III, 291.

Greisheimer,  $E.\ M.$ , Hafkesbring, R., and Magalhaes, H., [effects of an esthetics on urea clearance in dogs], III, 448.

Hodapp, A., and Goldsworthy, E., effect of anticoagulants on [blood] sedimentation rate, III, 161.

Greslin, J. See Unna, K. Gressly, E. See Bernhard, K.

Gresson, R. A. R., effect of increased daily illumination and of reversed day and night on æstrous cycle of mouse, III, 99,  $19\overline{2}.$ 

Grether, W. F., spectral saturation curves for chimpanzee and man, III, 750. and Yerkes, R. M., weight norms and

relations for chimpanzee, III, 4. Griesel, IV., skin temperature and neuro-

genic hyperthermia, III, 974. Grieve, W. S. M. See Aylward, F. X.

Griffin, E. P., jun. See Backus, G. R. Griffith, F. E. See Jones, R. R. Griffith, F. R., jun., Emery, F. E., and Lockwood, J. E., metabolism of cats

under chloralose anæsthesia, III, 528. Griffith, H. D., and Fraser, A. M., fluorescent medium for use on surface plates, I,

Griffith, J. P. See McClenahan, J. E.

Griffith, J. Q., jun. See Zinn, C. J.
Griffith, R. See Price, D.
Griffith, W. H., choline metabolism.
Effect of supplementary chol choline, methionine, and cystine, and of casein, lactalbumin, fibrin, edestin, and gelatin in hæmorrhagic degeneration in young rats, III, 774.

and Mulford, D. J., choline, creatine, and "labile methyl" supply, III, 282.
Choline metabolism. VI. Hæmorrhagie degeneration and labile methyl supply,

III, 602.

Griffiths, M., anterior pituitary extracts and insulin content of panereas of hypophysectomised rat, III, 758. Insulin versus posterior lobe pituitary extract, III, 760.

Marks, H. P., and Young, F. G., influence of estrogens and androgens on glycogen storage in fasting rat, III, 441.

Griggs, M. A., Johnstin, R., and Elledge, B. E., mineral analysis of biological materials, III, 407.

See also Ambler, P.
Grigorian, E. S. See Balandin, A. A.
Grimberg, A. See Mutermilch, S.
Grimm, W. See Neuweiler, W.

Grimmer, R. V., and Langworthy, O. R., apparatus to record movement of extremities, III, 736.

Grimson, J. M., and Field, J., jun., oxygen consumption in vitro of brain cortex, kidney, and skeletal muscle from adrenalectomised rats, III, 348.

Grinberg, A. A., applications of radioactive indicators for solution of problems of chemistry of complex compounds, I,

Grinberg, E. A. See Chomenko, G. I. Grinberg, F. L., synthesis of theophylline, II, 234.

Grinevitsch, V. M., chlorination of barium sulphide solutions, I, 424.

Grinker, R. R., cisterna magna lead for electro-encephalography [in man], III,

Grinnell, S. W. See Irving, L. Grinnels, C. D. See Richmond, M. S. Grinstein, M., porphyrins. I. Chemical constitution, properties, and methods of investigation; chemical study of porphyrins of excrota, bile, and blood of case of chronic porphyria. II. Crystallisation of methyl esters of porphyrins, II, 234; III. 555.

Grisewood, E. N. See Bacon, R. H.

Groat, R. A., isobutyl methacrylate polymeride as mounting medium, III, 70. Clearing tissue with mixtures of tributyl and tri-o-cresyl phosphates, III, 823. Grob, L. See Ruzicka, L.

Grobstein, C., effect of testosterone propionate on regenerating anal fin of adult Platypæcilus maculatus females, III, 576.

Grodinsky, M., and Holyoke, E. A., fasciæ and fascial spaces of palm, III, 485.

Grodius, F. S. See Osborne, S. L. Groetsema, F., and Marlow, H. W. histological effects of injecting residual

ovarian extracts, III, 675.
Groetzinger, G. See Schein, M.
Grollman, A., Williams, J. R., jun., and
Harrison, T. R., renal extracts and
hypertension, III, 653.
See also Williams, J. R., jun.

Grolnick, M., intra-uterine transmission to infant of artificially induced contacttype dermatitis, III, 1081.

Groome, J. R., seasonal modification of interstitial tissue of testis in fruit bat, III,

442.

Gros, W., precipitation reaction in serum with Hayem's solution, III, 643.

Groschev, L. V., probability of formation of pairs in gases by y-rays, I, 186. Angular distribution for electron-posi-

tron pairs in gases, I, 186. Grosheintz, J. M., and Fischer, H. O. L., preparation of 1-acyl-1:2-dihydroquinoline-2-nitriles and their hydrolysis to aldehydes, II, 333.

Gross, E., scattering of light and relaxation phenomena in liquids, I, 149. Raskin, A., and Seidel, A., electronic Raman effect, I, 240.

Gross, E. G. See Fugo, N. W., Thompson,

V., and Winter, C. A.

Gross, F., acuto pancreatic necrosis with rupture of stomach in a 3-year-old child, III, 445.

Gross, P., feetal endocarditis, III, 335. Rôle of unsaturated fatty acids in acrodynia (vitamin-B<sub>6</sub> deficiency) of albino rat, III, 374. Nonpellagrous eruptions due to deficiency of vitamin-

B complex, III, 596.

Cooper, F. B., and Phillips, J. D., cytological response of rats and mice to strain of Greening streptococci, III,

Gross, P. M. Seo Maryott, A. A., Pohl, H. A., and Vermillion, H. E.

Gross, R. E., surgical closures of patent ductus arteriosus, III, 82, 248, 423. See also Eppinger, E. C.

Gross, S. T., unit cell measurements of Pb<sub>3</sub>O<sub>4</sub>, Pb<sub>2</sub>O<sub>3</sub>, and Tl<sub>2</sub>SO<sub>4</sub>, I, 247. Grosse, A. V., equation of <sup>235</sup>uranium fission,

I, 95.

Booth, E. T., and Dunning, J. R., fourth (4n + 1) radioactive series, I,

See also Anderson, H. L.

Grossman, A. M., practical therapy with vitamin-K, III, 834. Coagulation defects in infancy and childhood; hypoprothrombinæmic states and their treatment with vitamin-K, III, 967.

Grossman,  $E.\ B.$  See Soffer,  $L.\ J.$  Grossowicz, N. See Kligler,  $I.\ J.$  Grote,  $I.\ W.$ , and Colburn, C., volatile acids

of Viburnum stem and root barks, III, 542.

Grothe, H., and Savelsberg, W., decomposition potentials of lithium chloride, potassium chloride, and magnesium chloride, I, 16.

Grove, D. C., and Keenan, G. L., dimorphism of sulphathiazolc, II, 109. Groves, K. See McCulloch, E. C.

Grow, M. H., and Stiff, H. A., colloidal gold phenomena in serum in allergy, III, 969. Growney, G., electrophoresis of complex particles as a function of  $p_{\rm H}$ ; effect of stearic acid in ester particles, I, 210. Grubb, T. C. See Dunker, M. F. W.

Gruber, C. M., and Gruber, C. M., jun., effect of barbiturates on pyloric sphincter and stomach in unanæsthetised dogs, III, 788.

See also Drake, M. E., and Haury, V. G. Gruber, C. M., jun. See Gruber, C. M.

Grubina, L. M., and Stender, V. V., electrolytic preparation of benzidine-3:3'-di-sulphonic acid, II, 130.

Grudkova, L. I. See Mischtschenko, K. P. Grün, F. See Ruggli, P.

Grüneberg, H., growth of blood of sucking mouse, III, 550. Siderocytes: a new kind of crythrocytes, III, 829.

Gruenfeld, G. E., and Gray, S. H., malformations of lung, III, 563.

Grüninger,  $U_{\cdot \cdot}$ , Graby,  $I_{\cdot \cdot}$ , and Ohling,  $A_{\cdot \cdot}$ ,

morphia in infancy, III, 465.
and Scheurenberg, G., adalin and noctal
concentration in brain of rabbits during anæsthesia, III, 295.

Grünthal, E., and Hartmann, K., hemichorca with striatal lesion, III, 987. and Stähli, R., torsion spasm following epidemic encephalitis, III, 987.

and Wenger, O., hereditary transmission of Alzheimer's disease, with remarks on cerebral ageing, III, 993.

Grünwald, P., atresia of esophagus combined with tracheo-œsophageal fistula in 9-mm. human embryo, and its embryo-logical explanation, III, 239. Genetics of kidney dystopias, III, 487. Normal and abnormal detachment of body and gut from blastoderm in chick embryo, III, 720. Tissue anomalies of probable neural crest origin in twenty-millimetre human embryo with myeloschisis, III, 824.

Grüssner, A., Gätzi-Fichter, M., and Reichstein, T., crystalline quinine salts of (+)- and (-)-pantothenic acid and biological activity of ethyl d(+)-pantothenate, II, 29.

See also Reichstein, T.

Grütter, O., crystallographic studies of perchlorates of three bases 1-dimethylamino-6-hydroxy- (base I), 6-dimethylamino-1-hydroxy-dihydrocarvone (base II), and 6-dimethylaminocarvone (base III), I, 326.

Grumbach, L., and Wilbur, D. T., posttetanic potentiation and suppression in muscle, III, 737.

Gruner, J. W., cristobalite in bentonite, I, 134. Abundance and significance of cristobalite in bentonites and fuller's earths, I, 183.

Gsell, O., chemotherapy of acute infections with Ciba 3714, III, 33. Action of potassium chlorate on epidemic poliomyelitis, III, 37.

Gubner, R. See Master, A. M. Gucker, F. T., jun., and Ford, W. L.,

apparent and partial molal heat capacities and volumes of glycine and glycollamide. II. Concentrated solu-

tions of glycollamide, I, 162. Pickard, H. B., and Ford, W. L., heats of dilution of aqueous solutions of glycine and glycollamide; thermodynamic

properties of glycine at 25°, I, 48. Gudger, E. W., feeding organs of Rhineodon typus (the whale shark), III, 485.

Gübell, O. See Treadwell, W. D. Guédras, M., bentonite, I, 63.

Güntelberg, E., electrolyte activities in

aqueous solutions, I, 48.
Guerrant, N. B., and Dutcher, R. A., influence of exoroise on growing rat in presence and absence of vitamin- $B_1$ , Ill,

Guerrant, R. E. See Hogan, A. G.

Guest, G. M., and Rapoport, S., organic acidsoluble phosphorus of red blood cells in different acidotic states, III, 167. See also Rapoport, S.

Guest, J. J., combined stress and anisotropy, I, 35.

Guest, M. M., and Rawson, R. A., carbohydrate storage and mobilisation with changes in blood- $p_{\rm H}$ , III, 690. See also McBride, J. J.

Güthert, H., alveolar-cell pneumonia in psittacosis, III, 83.

Guetrot, and Meites, M., toxic substances of Amanita phalloides, III, 466.

Guggenheim, E. A., ethane-ethylenehydrogen equilibrium, I, 114, 298.

Guggisberg,  $\hat{H}$ ., hormonal and nervous regulation of female sex organs, III,

See also Nitschmann, H. Guha, P. C. Seo Iyer, B. H.

Guha-Sircar, S. S., and Bhattacharjee, S. C., use of nitroso-derivatives as reagents in inorganic analysis. I. and II., I, 429, 430.

See also Esh, G. C. Guichard, M. See Baxter, G. P. Guillet, R. Seo McCullagh, D. R.

Guilliermond, A., vital stain for yeast, III, 1063.

Guimarăes, C. P., djalmaite, a new radio-active mineral, I, 491.

Guion, C. M. Seo McCombs, P. Gukelberger, M., application of Donaggio reaction in blood serum and its suitability for determination of fino colloidal reactions, III, 169.

Guldberg, G., determination of alcohol concentration after death, III, 380.

Guli, M. F., and Novikova, S. I., relationship between carbohydrate metabolism and diet in animals under conditions of general fatiguing work. I. and II., Ill, 700.

See also Ribak, P. J.,
Guliakov, V. M. See Esafov, V. I.
Gulick, A. See Williamson, M.

Gundobina, T. D., measurement of total number of neutrons emitted by permanent radium-beryllium source of radioactivity laboratory of Physico-Technical Institute [of Academy of Science, Charkov], I, 313.

Gunn, E. L., [electrical] conductivity tests

for reactions, I, 60. Gunn, J. A., action of drugs on human uterus, III, 617. Pharmacological actions of morphothebaine dimethyl ether, III, 910.

Gunnarson, S., treatment of rickets with single massive dose of vitamin- $D_2$ , III,

Gupta, G. N. See Rao, K. A. N.

Gupta, H. L., Jain, A. C., and Khanna, N. N., evaporation from earthen jugs, I,

Gurchot, C., and Finnegan, J. K., labelling

bottles, I, 432. Gurd, F. B., and Robertson, H. R., water and electrolyte balance in surgery, III, 290.

Gurd, M. R. See Balassa, G.

Gurevitsch, G., and Kobeko, P., polymerides. III. Mechanical testing of soft and hard rubber and plastics, I, 112.

Gurevitsch, I. See Filippov, A. Gurevitsch, I. D., and Kapustina, V. I., equilibrium problems in aërosols, I, 39.

Gurevitsch, I. I., phase transformations of

nuclear matter, 1, 287.

Gurevitsch, J. M., and Bereshinskaja, M. T., effect of granulometric composition of powders on their ability to bind liquids. I. and II., I, 42.

Gurin, S., and Hood, D. B., identification and determination of pentose in nucleic acids and nucleoproteins, II, 307.

Gurinsky, D. H., camera for photographic demonstration, I, 130.

See also Ehret, W. F.
Gurjanova, E. N., dipole moments of aromatic sulpho-compounds, I, 322.

Gurovitsch, E. I., corrosivity of zinc-magnesium alloys, I, 252.

Gurvitsch, A., and Gurvitsch, L., mitogenetic emission spectra of radicals, I, 239. Quenching and inhibition of mitogenetic radiation, I, 240. Polymerisation processes induced by mitogenetic radiation. II. Influence on amino- acids and production of a "deaminase" by

irradiation, I, 304.
Gurvitsch, A. J. See Diatschkovski, S. I.
Gurvitsch, L. See Gurvitsch, A.
Gusberg, S. B., Zamecnik, P., and Aub,
J. C., distribution of injected organic disclenides in tissues of tumour-bearing animals, III, 530.

Guseva, A. See Schmuk, A.

Guseva, L. N. See Kuznetzov, V. G. Guss, C. O. See Smith, L. I.

Gustavson, K. H., reaction of formaldehyde

with proteins, II, 114. Gustavson, R. G., and D'Amour, F. E. assay of gonadotropins and gonadal hormones, III, 1012.

Guth, E., radiative transition probabilities in heavy nuclei; excitation of nuclei

by X-rays, I, 189.
and Mullin, C. J., electron emission of metals in electric fields. I. Periodic deviations from the Schottky line. II. Field dependence of surface photoeffect, I, 285, 312.

Guthrie, J. D., rôle of glutathione in breaking of rest period of buds by ethylene

chlorohydrin, III, 59.

Gutman, A. B., and Gutman, E. B., quantitative relations of a prostatic component (acid phosphatase) of human seminal fluid, III, 353.

See also Gutman, E. B.

Gutman, E. B., and Gutman, A. B., determination of "acid" phosphatase of blood serum, III, 138.

See also Gutman, A. B. Gutman, J., [diagnostic tests in] serious vascular affections, III, 844.

Gutmann, M. J., hay fever in Palestine, III, 634.

Gutnitzkaja, P. M. See Borshkovski, S. E. Gutschovskaja, O. J., metal content of liver and bile of vertebrates. II., III, 680. Gutstein-Good, M., idiopathic myalgia, III,

Guttmann, E., and Jones, M., hyperventilation and effort syndrome, III,

See also Maclay, W. S.

Guy, W. H., Goldmann, B. A., Gannon, G. P., and Slone, J., acetylglycarsenobenzene in treatment of syphilis, III,

and Jacob, F. M., occupational dermatitis due to p-chloro-m-cresol, III, 1055.

Guyer, M. F. See Mohs. F. E. Guyer, W. R. F., Joris, G. G., and Taylor, H. S., adsorption and nitrogen isotope exchange on metallic osmium catalysts, I, 273.

Guzinski, P. See Thiele, W.

Guzmán, J., and Celsi, S. A., slow and rapid autoelectro-analysis, I, 128.

Gwan, Y. S., preparation of aceto- and benzo-nitriles, II, 317. Gwynn, B. H. See Feasley, C. F.

György, P., dietary treatment of scaly desquamative dermatoses of seborrhæic typė, III, 596.

and Goldblatt, H., choline as member of vitamin- $B_2$  complex, III, 25.

and Poling, C. E., pantothenic acid and nutritional achromotrichia in rats, III, 118, 374.

Rose, C. S., Hofmann, K., Melville, D. B., and Du Vigneaud, V., identity of vitamin-H with biotin, III, 779. See also Du Vigneaud, V.

Gysin, M., quartz monzonites from valley of the Ak-Su, Anatolia, I, 136. Dolo-

mites of Divrik, Turkey, I, 351.
and Kovaliv, P., rare copper-cobalt
mineral from Meskani (Iran) deposit, I. 136. Mineralogical analysis marine sands of Anatolia, I, 136.

and Pamir, H. N., syenite-monzonite rocks from north of Shébine-Kara-Hissar, Anatolia, I, 136.

See also Collet, L. W. Gyüre, D., value of cutaneous revaccination,

III, 396. Clinical definition of allergy, III, 397. Vaccination as allergic reaction, III, 397.

## H.

Haag, E., mechanism of Phycomyces test for aneurin, III, 285. Pyruvic acid and alcoholic fermentation in a synthetic medium, III, 304.

and Dalphin, C., biochemical reaction of aneurin, III, 284. Mechanism of accumulation of pyruvic acid during alcoholic fermentation in a synthetic medium, III, 304.

See also Chodat, F.

Haag, H. B., and Taliaferro, L., effect of ascorbic acid on guinea-pig colon, III, 583. Haag, J. R., calcium and phosphorus contents of chickens of various ages, III, 109.

Haagen-Smit, A. J., Leech, W. D., and Bergen, W. R., determination, isolation, and identification of auxins in plant material, III, 818. See also Bonner, D. M.

Haagensen, C. D., Randall, H. T., and Auchincloss, R., failure of thyrotropic pituitary hormone to prevent spontaneous mammary cancer in mice, III, 351.

Haam, E. von, Hammel, M. A., Rardin, T. E., and Schoene, R. H., activity and toxicity of stilbæstrol, III, 357. Stilbœstrol, III, 357.

Haas, E., Horecker, B. L., and Hogness, T. R., enzymic reduction of cytochrome c; cytochrome c reductase, III, 301.

See also Horecker, B. L. Haas, R. See Lettré, H.

Haas, S. L., influence of fusion of spine on

growth of vertebræ, III, 238.

Habel, K., tissue factors in antirabies immunity of experimental animals, III, 809. Efficacy of phenolised rabics vaccine, III, 809.

Hachtel, F. W. See Sacks, M. S.

Haden, R. L., hæmolytic anæmia, III, 164. Human red cell, III, 830.

and Schneider, R. W., hæmorrhagic diathesis, III, 647.

Haden, W. L., jun., and Luttropp, E. S., microanalysis of gases; combined Toepler pump and McLeod gauge designed for micro-analysis with dry

reagents, I, 487.
Meibohm, E. P. H., and Rice, O. K., chain photolysis of acetaldehyde in

intermittent light, I, 122.

Hadfield, G., and Christie, R. V., pulmonary concussion from high explosive, III, 340.

Ross, J. M., Swain, R. H. A., Drury-White, J. M., and Jordan, A., blast from high explosive, III, 175.

Hadidian,  $Z_{\cdot \cdot}$ , and Hoagland,  $H_{\cdot \cdot}$ , chemical pace makers. III. Activation energies of rate-limiting components of respiratory systems, III, 386.

Hadley, E. H., and Bigelow, L. A., action of elementary fluorine on organic com-pounds. IX. Vapour-phase fluorination of methane, II, 81.

Hadley, H. G., fusion of third and fourth lumbar vertebræ, III, 317. Visscher-Bowman chemical test for pregnancy, III, 765. Sea nettle or jelly fish [and their stings], III, 813. Sprengel's deformity [congenital elevation of scapula]. III, 951.

Hadorn, E., lethal hereditary factors, III, 488.

Hadorn, W., action of hypertonic glucose solution in heart disease, III, 171. Use of intravenous hypertonic glucose in cardiac failure, III, 248. Graves' disease and hyperthyroidism, III, 261.

Haege, L. F. See Dean, R. B., Fenn, W. O.,

and Manery, J. F.
Hämmerle, W. See Mohler, H.
Haendler, H. M., and Rising, L. W.,
intermolecular compounds, I, 300.

and Smith, G. McPhail, addition compounds of morpholine, II, 205. Inner complexes of benzeneazo-phenanthrol, -retenol, and -chrysenol, II, 249. Haerem, A. T., tissue response [tumour

production] to sulphanilamide in mice, III, 279.

Hässler, E., eye complications in infantile chronic polyarthritis and Still's disease, III, 432. Atypical late rickets, III, 485.

and Schallock, G., chondrodystrophia calcificans, III, 410.

Hafez, M. M. See Bennett, G. M.

Haff, J. C., determination of extinction angles in augite and hornblende with the universal stage according to method of Conrad Burri, I, 348.

Haffter, C. See Neergaard, K. von.

Hafkesbring, R. See Cole, V. V., and Greisheimer, E. M.

Hafner, E. M. See Dessauer, G.

Hagedoorn, A., striæ retinæ, III, 346. Hagedorn, A., Johannessohn, F., Rabald, E., and Voss, H. E., glucosides of æstrone

series, III, 353, 1010. Hageman, P. O., and Doubly, J. A., variation in immune response to Br. abortus depending on route of administration, III, 391.

Hager, G. P., Starkey, E. B., and Chapman, C. W., synthesis and toxicity of N<sup>1</sup>-p-fluorophenylsulphanilamide, II, 192; III,

Haggard, H. H. See Bowditch, M. Haggard, H. W., and Greenberg, L. A., influence of fruit juices on gastric function, III, 876.

Greenberg, L. A., and Carroll, R. P., absorption, distribution, and elimination of alcohol. VIII. Diuresis from alcohol and its influence on elimination of alcohol in urine, III, 615.

Greenberg, L. A., Carroll, R. P., and Miller, D. P., urine tests for alcoholic

intoxication, III, 465.

Greenberg, L. A., Cohen, L. H., and Rakieten, N., absorption, distribution, and elimination of alcohol. IX. Concentration of alcohol in blood causing primary cardiac failure, III, 615.

Greenberg, L. A., and Lolli, G., absorption of alcohol, III, 691.

Greenberg, L. A., Miller, D. P., and Carroll, R. P., alcohol of lung air as index of alcohol in blood, III, 911.

Haggstrom, E., B-ray spectrum of 233 cka-

tantalum, I, 190.

Hagino, N., heteroplasia of endometrial autotransplants in rabbit, III, 1011. Adenomyosis. II. Effect of functional ovarian change on transplantation and heteroplastic properties of endo-metrium. III. Effect of sex hormones, III, 1011.

Hagisawa, H., dissociation constant of hydroxylamine, I, 376. Dissociation constant of hydrogen selenide, I, 468.

Hagstrum, H. D., and Tate, J. T., ionisation and dissociation of diatomic molecules by electron impact, I, 193. Thermal activation of oxygen molecule, I, 242.

Hahn, L., and Hevesy, G., determination of

blood volume, III, 329. Haig, C., course of rod dark adaptation as influenced by intensity and duration of per-adaptation to light, III, 999.

See also Patek, A.J.

Hailer, E., and Bockelberg, U. von, germicidal effect of halogens on anthrax bacilli, III, 611.

Hailwood, J. G., defective colour vision, III, 1000.

Hain, A. M., excretion of cestrogen and pregnanediol by pregnant and parturient women; normal and toxemic cases, III,

Haines, R. W., epiphysial structure in lizards and marsupials, III, 409. Actions of cruciate ligaments of knee joint, III,

Haines, S. F., hippuric acid test in hyperthyroidism, III, 261.

Haines, S. F., Magath, T. B., and Power, M. H., hippuric acid test of liver function in hyperthyroidism, III, 584.

Haines, W. T. See Mitchell, H. H. Haist, R. E. See Best, C. H.

Hakbedel, H. S. See Brill, H. C.

Halban, H. von, and Litmanowitsch, M., ionic association and absorption spectra. II., I, 237. Absorption spectrographic methods, I, 282.

 $\mathbf{Halbrecht}, J.$ , agglutinins and agglutinogens in blood of newborn, III, 325

Haldane, J. B. S., blood groups of anthropoids, III, 74. Relative importance of principal and modifying genes in determining human diseases, III, 157. Partial sex-linkage of recessive spastic paraplegia, III, 157.

See also Case, E. M.

Haldi, J., Bachmann, G., Ensor, C., and Wynn, W., effect of various amounts of caffeine on gaseous exchange and respiratory quotient in man, III, 780. See also Bachmann, G.

Hale, C. W. See McClean, D. Hale, D. M. See Hiestand, W. A.

Hale, E. B., Duncan, C. W., and Huffman,

C. F., rumen digestion in bovine with observations on digestibility of lucerne hay, III, 445.

Hale, R. W. See Common, R. H.
Hale, W. C. See Dorman, S. C.
Halford, F. J., and Gotschalk, H. C. epitheliomatous degeneration in scar of burn, III, 1029.

Halford, J. O., and Reid, E. B., equilibrium in chloride formation from mono-, di-, and tri-arylearbinols, I, 413.

Halford, R. S., lower limit for velocities of formation of trihalide ions in aqueous solution, I, 271.

Hall, A. C., and Heidt, L. J., electronic relay for heat control, I, 390.

Hall, A. J., relation between colour and chemical composition in biotites, I, 353. Relation between chemical composition and refractive index in biotites, I,

Hall, B. E., and Watkins, C. H., myelogenous leukæmia changing to monocytic leukæmia, III, 835.

Hall, C. E., and Schoen, A. L., application of electron microscope to the study of photographic phenomena, I, 422.

Hall, D. B. See Rossi, B. Hall, E. M., and Ichioka, T., etiology of calcified nodular aortic stenosis, III, 249.

See also Reimann, S. P.

Hall, F. See Hench, P. S.
Hall, F. G. See Dill, D. B., and Forbes,
W. H.

Hall, G. O., breed variations in egg characters, III, 192.

Hall, J. L., physical-chemical investigation of nuclcoproteins. II. General electrophoretic behaviour, I, 26I. Moving boundary electrophoretic study of insulin, I, 335; III, 921.

Hall, J. M. See Roe, J. H.

Hall, K. See Korenchevsky, V. Hall, L. T., Thompson, E., and Wyrens, R. J., intramuscular administration of sodium sulphapyridine, III, 213.

Hall, N. F., electrophiles and electrodotes, I, and Alexander, O. R., oxygen exchange between anions and water, I, 123.

See also Alexander, O. R.Hall, S. A. See Joshel, L. M. Hall, W. E. B., legal aspects of autopsies and pathological specimens in Missouri, III, 1021.

Hall, W. H., proposed standardisation of osmotic pressure as a term, I, 79. and Hochanadel, C., isotopic composition

of cuprite oxygen, I, 231. Hall, W. K., Gibson, R. B., and Weed,

L. A., effects of gum acacia on functions of liver and production of immune bodies, III, 201

Hall, W. L. See Kline, O. L.

Halla, F., and Weil, R., X-ray study of "crystalline boron," I, 153.

Haller, H. L. See Schechter, M. S. Haller, M. L. See Goodhue, L. D.

Haller, R., [composition and constitution of Turkey-red], II, 106. Structure of starch granules, II, 121.

Hallett, L. T. See Royer, G. L. Halley, C. R. L. See Noble, D.

Halley, E. P., and Melnick, P. J., preoperative irradiation in carcinoma of

breast, III, 207. Halliday, E. C., thundercloud as a source of penetrating particles, I, 396. See also Pierce, J. A.

Halliday, N., and Deuel, H. J., jun., free and combined ancurin in milk, III, 892.

Hallman, L. F. See Deuel, H. J., jun. Hallowell, A. T. See Morton, A. A.

Hallpike, C. S., and Scott, P., function of round window, III, 260. See also Aldred, P.

Halls, E. E., silver reductor in analytical chemistry [determination of traces of iron], I, 347.

Hallstone, V. E. See Moore, F. G. Halnan, E. T., poultry as food converters,

III, 1031. Halpern, B. N., comparison of effect of atropine and a-phenylvaleric ester of diethylamino-ethanol on gastric secretion of dog, III, 910.

Halpern, K. C. See Fraser, D. T.

Halpern, L., neurophysiology of walking, III, 87. Frontal lobe syndromes, III,

Halpern, O., passage of neutrons through ferromagnets, I, 359.

Hamermesh, M., and Johnson, M. H., passage of neutrons through crystals

and polycrystals, I, 359.
and Johnson, M. H., measurement of observables in relativistic quantum mechanics, I, 318.

Halpin, J. G. See Christiansen, J. B. Halstead, W. C., Bartley effect in estimation of equivalent brightness, III, 750.

Halstrøm, F., and Møller, K. O., case of fatal salicyclic acid (? acetylsalicylic acid) poisoning with organ analysis, III, 132.

Halverson, J. O., and Sherwood, F. W., vitamin-A activity and vitamin-B<sub>1</sub> content of soya beans and cowpeas, III,

Halverstadt, L. F., and Kumler, W. D., 4-aminodiphenyl-4'-sulphonamide and its derivatives, II, 130.

See also Kumler, W.D.Halvorson, H.O. See Ordal, E.J.

Ham, G. C., and Horack, H. M., chronic hæmolytic anæmia with paroxysmal nocturnal hæmoglobinæmia, III, 962. See also Pepper, D. S.

Hamamura, Y., Iida, S., and Otuka, M., enzymic studies on exuvial fluid of Bombyz mori, L. I. Detection of enzymes, III, 110.

Hamamnra, Y., and Kanehara, Y., enzymie studies on exuvial fluid of Bombyx mori, L. II. Chitinase, III, 110.

Hamar, N., sugar, water, and creatine excretion in normal and in B-avitamin-

otic dogs, III, 449.

Hamawaki, T., and Saito, K., hysterosalpingography in sterile women. I. Patency of tube, III, 1012.

Hamblen, E. C., Cuyler, W. K., and Axelson, G. J., corpus luteum metabolism. I. Intermenstrual administration of testosterone propionate. II. Intermenstrual administration of cestrogens, III, 358.

Cuyler, W. K., Pattee, C. J., and Axelson, G. J., progesterone-like action of deoxycorticosterone acetate in women,

III, 349.

Pattee, C. J., and Cuyler, W. K., alteration of urinary excretion of androgens by cestrogenic therapy, III,

Hambourger, W. E., toxicology of barbiturates, III, 40.

Hamburger, (Miss) G. See McCullough,

Hamburger, M., and Robertson, O. H., pathogenesis of experimental pneumococcus pneumonia in dog. I. Secondary pulmonary lesions; relationship of bronchial obstruction and distribution of pneumococci to their inception. II. Production of secondary pulmonary lesions by intratracheal and intrabronchial injection of fluid pneumonic

exudate, III, 474. and Ruegsegger, J. M., treatment of staphylococcal septicæmia with sulphamethylthiazole and sulphathiazole,

III, 607.

See also Ruegsegger, J. M. Hamermesh, M. See Halpern, O. Hamid, A. See Desai, R. D. Hamilton, A. See Bowditch, M. Hamilton, A. S. See Collins, D. A.
Hamilton, C. S. See Banks, C. K., and
Utermohlen, W. P., jun.

Hamilton, H. L., melanophores with special reference to their rôle in feather coloration, III, 241. Influence of sex hormones and deoxycorticosterone on melanophore differentiation in birds, III, 268.

Hamilton, J. B., orthoptics in Tasmania, III, 501. Therapeutics of testicular

dysfunction, III, 760. See also Duncan, P. A., Edwards, E. A., and Wilson, J. G.

Hamilton, J. E., common salt as preservative, III, 63.

Hamilton, J. M., numbering serial celloidin

sections, III, 827.

Hamilton, S. L. See Gellhorn, E. Hamilton, T. S., phosphorus in human and animal health, III, 380.

See also Mitchell, H. H.

Hamilton, W. F. See Robinow, M., and Woodbury, R. A.

Hamilton, W. J. See Asdell, S. A., and Gladstone, R. J.

Hamilton-Paterson, J. L., mitosis in monocytic leukæmia, III, 326. Chronic benzene poisoning, III, 466.

Hamm, E. von, recent progress in endocrinology, III, 752.
Hamm, P., Harvey, R. B., and Miller, E. S., quantitative spectroscopic analysis of stem "tracheal" fluids for inorganic constituents, III. 818.

Hamm, R. E., and Thompson, T. G., specific gravities and electrical conductances of calcium sulphate solutions and mixtures of sodium chloride and calcium sulphate, I, 338.

Hamman, G. C. See Holmes, W. J. Hamman, L. See Gemmill, C. L.

Hammar, B., and Schröderheim, J., Cynosbatta [hips] as vitamin-C source, III, 28.

Hammarskjöld, S. O. See Abdon, N. O. Hammel, E. F., jun. See Glasstone, S. Hammel, M. A. See Haam, E. von.

Hammer, D. L., and Meis, A. M., thyroid arteries and anomalous subclavian in white and negro, III, 821.

Hammer, K. C. See Robbins, W. J.
Hammerand, V. See Anderson, A. L.
Hammes, E. M., jun., carbon tetrachloride
as an industrial hazard, III, 701.

Hammett, F. S., proline and tumour incidence in mice, III, 279.

Hammett, L. P. See McCleary, H. R., and Price, F. P., jun.

Hammick, D. L., and Yule, (Miss) R. B. M., complex formation between polynitrocompounds and aromatic hydrocarbons and bases. IX. Influence of solvents on temperature coefficients of colour densities, II, 38.

Hammond, G., Yglesias, L., and Davis, J. E., anatomy of urachus and associated

fasciæ, III, 949.

Hammond, J., fertility in mammals and birds, III, 875.

and Wodzicki, K., anatomical and histological changes during œstrous cycle in mare, III, 873.

See also Parkes, A. S. Hammond, J. C. See Wilcke, H. L. Hammond, J. W., and Macintire, W. H., thorium nitrate titration of microquantities of fluorine in aqueous and alcoholic systems, I, 175.

Hamner, K. C., and Bonner, J., photoperiodism in relation to hormones as factors in floral initiation and development, III, 149.

and Long, E. M., localisation of photoperiodic perception in Helianthus tuberosus, III, 401.

Hamos, L. von, formation of true X-ray images by reflexion on crystal mirrors, I, 152.

Hampil, B., Webster, G. W., and Moore. M. L., chemotherapeutic activity of  $N^4$ -acylsulphanilhydroxamides,

See also Gold, H.

Hampp, E. G., mineral distribution in

developing tooth, III. 3. Hampsey, J. W., chemotherapy in oto-

laryngology, III, 750.

Hampson, G. C., and Robertson, J. M., bond lengths and resonance in cisazobenzene molecule, I, 366.

Hampton, B. L. See Hasselstrom, T. Hampton, H. P., and Kepler, E. J., Addison's disease: treatment and prognosis, III, 1005.

Hampton, S. F. See Stull, A. Hanawa, Y. See Hoh, S.

Handler, P., Bernheim, F., and Klein, J. R., oxidation in vitro of N-methylaminoacids by kidney and liver, III, 524. Oxidation demethylation of sarcosine to glycine, III, 524.

See also Carter, H. E., Dann, W. J., Klein, J. R., and Smith, A. K. Handley, W. R. C. See Evans, W. C.

Handron, C. J., hyperparathyroidism cured by excision of parathyroid adenoma, III, 753. Diaphragmatic tic, III, 981.

Hanes, C. S. See Astury, W. T. Hanes, H. F. See Youmans, W. B. Hanford, Z. M. See Jensen, O. G.

Hangleiter, F., and Renter, A., serumlipase in various conditions, 111, 168.

Hanke, M. E. See Vennesland, B. Hankinson, C. L., and Briggs, D. R., electrokinetics. XXV. Electroviscous effect. II. Systems of calcium and sodium caseinates, 1, 375.

Hanmer, H. R. See Rayburn, C. H. Hann, R. M., and Hudson, C. S., D-gluco- $\sin < 1.5 > \beta < 1.6 >$  and D-galactosan  $<1,5>\beta<1,6>$  from pyrolysis of lactose, II, 242. D-Galactosan lactose, II, 242. I <1:5> $\beta$ <1:3>, II, 352.

See also Knauf, A. E. Hanna, O. D., and Grant, W. M., apparatus: for mounting diatoms in realgar and other substances, III, 70.

Hansche, G. E., intensity changes in Cameron bands of carbon monoxide excited by electron impact, I, 71.

Hansen, A. E., comparison of macroand micro-gravimetric techniques for lipin analysis of serum, III, 839. Ziegler, M. R., and McQuarrie,

disturbance of osseous and lipoid metabolism in child with primary carcinoma of liver, III, 14.

See also Luzzatti, L., and Spink, W. W. Hansen, E., and Christensen, B. E., determination of ethylene in emanations

from apples and peas, III, 635. Hansen,  $\hat{F}$ , formation of agglutinin in

whooping cough, III, 392. Hansen, H. L. See Wallace, D. A. Hansen, L., and Kreidler, W. A., sulphanilamide in blood and urine of rabbits infected with β-hæmolytic streptococci, III, 36.

Hansen, M. See Essen, K. W. Hansmann, G. A. See Gibbs, O. S.

Hanson, E. A., metabolism of chloroplast protein, III, 1083.

Hanson, J. F., effects of food combinations on leucopenic index determinations and on body temperature, III, 326.

Hanson, R. See Jundell, J.

Hanson, R. A., and Pearce, D. W., Colorado cerite, 1, 354.

Hanson, V. F., ultra-violet photometer:

quantitative measurement of small traces

of solvent vapours in air, I, 178. Hanssen, E. C. See Doran, W. T. Hanstein, H. B., interaction experiments

with resonance neutrons, I, 234.

Hanvey, R. V. See Crismon, C. A. Hanzal, R. F. See Dalton, A. J. Hanze, A. R. See Wolfrom, M. L.

Hanzlik, P. G., and Cutting, W. C., agents promoting gastro-intestinal absorption of insulin, III, 438.

Happold, F. C. See Evans, W. C. Hara, T. See Yamato, R. Harada, T., metallo-organic compounds. VIII. Tin trimethyl oxide and tin trimethyl hydroxide, IX. Tristrimethyltin oxonium halides, [SnMe<sub>3</sub>]<sub>3</sub>OX. X. Electroisomerism in tin triethyl, II, 60, 89, 284.

Harazawa, J. See Nonaka, N. Harber, W. I., graphite heating baths, I. 388. High mol. wt. aliphatic amines and their derivatives, II, 253.

Hardin, R. C. See DeGowin, E. L.Harding, H. B. See Breazeale, E. L. Harding, W. G., jun., and Leech, W. D., influence of vitamins on neoplasma, III, 516.

Hardman, J., asymmetry of skull in relation to subdural collections of fluid, III, 2.

Hardwick, C., and Lloyd, O., splenectomy in icterus gravis neonatorum, III, 962. See also Bennett, T. I.

Hardwick, S. W., and Stokes, A. B., metabolic investigations in periodic catatonia, III, 986.

Hardy, (Miss) E. M. See Cope, A. C. Hardy, J. D., Milhorat, A. T., and Du Bois, E. F. [with Soderstrom, G. F.], basal metabolism and heat loss of young women at temperatures from 22° to 35°, III, 897.

See also Milhorat, A. T., and Wolff, H. G.

Hardy, W. B. See Mayo, F. R. Hare, H. F., Roentgen changes in cranial vault accompanying diseases resulting from metabolic disturbances, III, 784.

Hare, K., and Geohegan, W. A., influence of frequency of stimulus on response to hypothalamic stimulation, III, 988.

Hare, R., expulsion of hamolytic streptococci by nasopharyngeal carriers, III, 230. Hæmolytic streptococci in normal people and in carriers, III, 394.

Hare, W. K., and Hinsey, J. C., reactions of dorsal root ganglion cells to section of peripheral and central processes, III,

Hargrave, J., Thompson, F. C., and Wood, J., size as a factor in chemical composition and morphological structure of tulip bulbs, III, 404. Hargrave, R. See Broders, A. C.

Hargraves, M. M., Herrell, W. E., and Pearman, R. O., erythrophagocytic anæmia (Ledcrer's anæmia?), Ill, 416.

Hargreaves, A., and Taylor, W. H., applications of X-ray methods in examination of organic crystals, I, 325. Hargreaves, C. C. See Blair, A. P.

Haring, C. M., and Traum, J., vaccination to control brucellosis in cattle, III, 1067.

See also Schalm, O. W.

Haring, M. M., and Heller, H. A., spectrophotometric study of characteristics of halogen-substituted sulphonephthalein indicators, I, 238.

See also Lamb, V. A.

Harington, C. R., micro-determination of potassium, III, 636.

See also Butler, G. C.

Harkavy, J., vascular allergy [relation to periarteritis nodosa], III, 977.

Harkema, J. See Marvel, C. S. Harkins, H. N. See Chunn, C. F.

Harkins, W. D., thermodynamic theory of spreading of liquids to form duplex films and of liquids or solids to form monolayers, I, 411.

and Boyd, E., states of monolayers, I, 109.

Young, T. F., and Boyd, E., thermodynamics of films: energy and entropy of extension and spreading of insoluble monolayers, I, 110.

See also Fowkes, F. M., and Nutting, G. C.

Harlan, W. R. See Rayburn, C. H. Harne, O. G. See Teitelbaum, H. A. Harne, W. G. See Krantz, J. C., jun. Harned, B. K., and Cole, V. V., action of

strontium and calcium on uterus, III, 359.

See also Cole, V. V.

Harned, H. S., and Robinson, R. A., activity coefficient of hydriodic acid at 25° from isopicatic vapour-pressure measurements, I, 299.

and Ross, A. M., jun., acid hydrolysis of methyl acetate in dioxan-water mix-

tures, I, 380.

Harnwell, G. P. See Ridenour, L. N. Harold, J. T., Pfeiffer bacillus meningitis and sulphapyridine, III, 1046.

Harper, A. A., and Vass, C. C. N., control of external pancreatic secretion (cat), III, 767.

Harper, A. F. A., and Roberts, N. F., precise measurement of energies of

 $\beta$ -rays from radium (B+C), I, 394. Harper, H. A., and Deuel, H. J., jun., urinary pyruvate in thiamin deficiency, III, 284.

Sec also Blanchard, E. L. Harper, S. B., Essex, H. E., and Osterberg, A. E., preparation and experimental use of dried blood plasma, III, 74.

Osterberg, A. E., Priestley, J. T., and Seldon, T. H., dried plasma transfusion, III, 725.

Harper, W. F., structure of human heart

valves, III, 68.

Harpley, C. H. See Keilin, D. Harpuder, K. See Byer, J. Harradence, (Miss) R. H., and Lions, F., constitution of gmelinol. II., II, 231. Experiments on synthesis of pyridine analogue of vitamin- $B_1$  (ancurin), II, 232.

Harrasser, A., anthropological methods in genetic studies of schizophrenic sibs, III,

Harrell, G. T. See Smith, S. G.

Harrer, C. J., and King, C. G., ascorbic acid deficiency and enzyme activity in guinea-pig tissues, III, 532.

Harrington, E. L., and Stewart, J. L., cross-section for thermal capture neutrons of Cd, 6Li, 10B, Ba, Hg, and 1H, I, 187.

Harrington, L. A. Sce Rendich, R. A. Harris, A. C., and Parton, H. N., transport numbers of zinc chloride from e.m.f. measurements, I, 16.

Harris, A. H., collodion sac for use in animal experimentation, III, 1086.

and Coleman, M. B., laboratory aids in diagnosis and control of enteric diseases, III, 800.

Harris, A. M. See Rubnitz, A. S.

Harris, B. P., onchocerciasis in South Kavirondo district of Kenya Colony [treatment with antimony], III, 618.

Harris, E. E., hydrogenation of lignin, II, 73.

and Lofdahl, L. J., reaction of methyl hypochlorite with lignin, II, 107. Harris, E. H. See Blatt, M. L.

Harris, G. C. See Woodward, R. B. Harris, G. W., hypothalamus and ovulation

in rabbit following injection of copper acetate, III, 988.

Harris, I., Ireland, J. T., and James, G. V., optimum calcium requirement, III, 372. Inorganic bases in blood and catabolism of food protein, III, 457.

Harris, J. E., determination of potassium by silver cobaltinitrite method, III, 236.

Harris, J. S. See Elgart, S.

Harris, L., and King, G. W., rotational structure of ultra-violet bands of nitrogen peroxide, I, 5. King, G. W., Benedict, W. S., and Pearse,

R. W. B., ultra-violet absorption of nitrogen peroxide, I, 4.

Harris, L., and Siegel, B. M., reactions of nitrogen dioxide with other gases, I. 479.

Harris, L. C. See Davies, H. A.

Harris, L. H., experimental reproduction of respiratory mould allergy, III, 811.

Harris, L. J., tests of vitamin-C nutrition. III, 26. Partial vitamin deficiencies. III, 283.

Harris, Milo, Ward, C. B., and Addington, E. A., device to allow use of tomograph on tilting table, III, 63.

Harris, Milton. See Hock, C. W. Harris, M. C., allergic sinusitis, III, 810.

Harris, M. H., negative therapeutic and metabolic effects of synthetic a-tocopherol (vitamin-E) in muscular dystrophy, III, 982.

Harris, M. M., and Harris, R. S., effect in vitro of curare and  $\beta$ -crythroidine hydrochloride on choline-esterase of human blood serum, III, 840. Effect in man of curare and metrazol administration on choline-esterase activity of blood serum, III, 840.

Harris, R. E., and Ingle, D. J., capacity for vigorous muscular activity of normal rats and of rats after removal of adrenal

medulla, III, 185.

Harris, R. S. See Harris, M. M. Harris, S. A., chemistry of vitamin- $B_a$ . II. Reactions and derivatives, II,

268.

Webb, T. J., and Folkers, K., chemistry of vitamin- $B_6$ . I. Tautomerism, II,

Harris, S. C. See Gray, J. S., and Greene, R. R.

Harris, W. B., modified eyepiece micrometer for use in dust counting, I, 431.

Harrison, B. M., and Shryock, E. H., cytogenesis in pars distalis of horse pituitary, III, 241.

Harrison, C. V. See King, E. J.

Harrison, F. See Corbin, K. B.

Harrison, G. A., and Picken, L. E. R., separation of serum in bulk, III, 554. Quantitative aspects of transfusion, III, 642.

Harrison, G. R., and Bentley, E. P., improved high-speed recording spectrophotometer, I, 89.

and McNally, J. R., jun., Zeeman offects in arc spectrum of ruthenium, I, 21. See also Roberson, J. H.

Harrison, H. C. Sec Harrison, H. E. Harrison, H. E., and Harrison, H. C.,

renal excretion of inorganic phosphate in relation to action of vitamin-D and parathyroid hormone, III, 365.

Harrison, J. R. See Williams, J. R., jun. Harrison, M. M. See Kinsman, J. M. Harrison, S. P., and Ivy, A. C., effect of

angiotonin on gall-bladder and duodenum, III, 562.

Harrison, T. R., and Wannamaker, W. H., improved radiation pyrometer, I, 129.

See also Grollman, A. Harrison, V. G. W., science of rheology, I,

Harrison, W., proteins, II, 306. Harrold, G. C. See McCord, C. P.

Harrow, B. See Wagreich, H.

Harry, N. M., exophthalmos in goitre, III, Harsh, G. F. See Donovan, P. B.

Hart, A. B., and Partington, J. R., vanadium ion oxidation-reduction potentials, I, 49.

Hart, D., and Meyrowitz, R., oxidation-reduction reaction catalysed by iodine; application to detection of iodide, I, 119. Removal of thiocyanate in detection of halides, I, 345. Hart, E. B. See Christiansen, J. B.,

Frost, D. V., Hegsted, D. M., Hove, E., Schantz, E. J., Wachtel, L. W., and Wegner, M. I.

Hart, E. R., N-allylnorcodeine and N-allylnormorphine, two antagonists to morphine, III, 915.

See also Drake, M. E., and McCawley, E. L.

Hart, J. F., blood-sugar in case of adiposogenital dystrophy showing chronic hypoglycæmia, III, 96.

and Lisa, J. R., hepatic cirrhosis and insulin therapy, III, 768.

See also Campbell, M.

Hart, L. H., theory of mineral sequence in hypogene ore deposits, I, 182.

Hart, M. J. See Cook, E. S.
Hart, P. J. See Atanasoff, J. V.
Hart, W. F., and Niederl, J. B., thiazolinem-cresol; functional derivatives and substitution products, II, 206.

Hart, W. H. t'. See Ketelaar, J. A. A. Hart, W. M. See Swan, K. C. Hart-Mercer, J. See Blakemore, F.

Harte, R. A. See Landsteiner, K.

Harten, M., and Walzer, M., allergy to insulin, liver, pituitary, pancreas, œstrogens, enzymes, and similar substances, III, 812.

Hartenstein, H. J., treatment of florid rickets with massive dosage of vitamin- $D_2$  and  $-D_3$ , III, 376. Congenital dilatation of cervical veins, III, 638.

Hartfall, S. J., intrinsic factor of Castle in simple achlorhydric anæmia, III, 164. Secretion of gastric juice in response to histamine in Addisonian anæmia, III, 199. Hartford, W. H., system sodium dichromate-water, I, 336.

Hartley, F., and Linnell, W. H., structure

of  $\gamma$ -sugars. V., II, 86. Hartley, G. S., interfacial activity of branched-paraffin-chain salts, I, 206.

Hartline, H. K., receptive fields of optic nerve fibres, III, 91. Effects of spatial summation in retina on excitation of fibres of optic nerve, III, 91.

Hartman, F. A., and Lewis, L. A., refractoriness produced by sodium-retaining

substances [of adrenal cortex], III, 755.

Hartman, F. W., cellophane cylinders for desiccating blood plasma, III, 329.

Hartman, H. R., and Kyser, F. A., atebrine in giardiasis, III, 1048.

Hartman, M. M., test for sulphanilamide and its derivatives, III, 214.

Hartman, P. L. See Smith, L. P. Hartman, R. J. See Gassmann, A. G., and Hobson, R. W.

Hartmann, A., sensitivity of blood grouping reactions, III, 325.

Hartmann, K. See Grünthal, E.

Hartmann, M., and Druey, J., 3-methylthiazolone-2-p-aminobenzenesulphonimide, II, 271.

Hartnagel, J. Sec Mohler, H.

Hartog, (Sir) P. J., views of Priestley and Lavoisier, I, 392.

Hartree, D. R. See Hartree, W. Hartree, E. F. See Keilin, D.

Hartree, W., Hartree, D. R., and Manning, M. F., self-consistent field calculations for (A) Zn, Ga, Ga+, Ga+++, As, As+, As++, As+++, (B) Ge++ and Ge, I, 191.

Hartsock, C. L., neurocirculatory asthenia, III, 422.

Hartt, C. E., synthesis of sucrose by excised blades of cane, III, 635.

Hartung, E. F., and Cotter, J., effect of gold sodium thiomalate administration on bacteriostatic properties of serum in patients with rheumatoid arthritis, III, **789.** 

Hartung, E. J. See Allison, L. R. Hartung, W. H., and Koehler, H. F., alkylnitrophenols, II, 166.

Minnick, L. J., and Koehler, H. F., amino-alkylphenols, II, 131.

Hartz, P. H., Sar, A. van der, and Meeteren, A. van, occurrence of mitotic divisions in glomeruli in glomerulonephritis and malignant sclerosis, III, 1020.

Hartzell, A., feeding experiments with thiourea, III, 132.

Hartzell, J. B., Winfield, J. M., and Irvin, J. L., plasma-vitamin-C and serumproteins in wound disruption, III, 521.

Harvalik, Z., micro-chamber for low temperatures, I, 486. Harvey, A. M. See Brown, G. L., and

Brown, T. McP.

Harvey, C. C., excretion of squash-seed globulin and blood-proteins in urine after intravenous injection of crystallised squash-seed globulin, III, 17.

Harvey, D. G., Miller, Eric J., and Robson, W., tests for tryptophan; constitution of yohimbine; action of formaldehyde on tryptophan, II, 176.

Harvey, E. B., parthenogenetic merogony of eggs of sea urchins, III, 954.

and Hollaender, A., parthenogenetic development of eggs and egg-fractions of Arbacia punctulata caused by monochromatic ultra-violet radiation, III, 954.

Harvey, M. H., and Joplin, G. A., leucitebearing rocks from New South Wales, with reference to an ultrabasic occurrence at Murrumburrah, I, 488.

Harvey, R. B. See Hamm, P.

Harvey, M. B. See Hamm, I.
Harvey, W. F., standardisation of blood
examination. VII. Sedimentation rate,
sedimentation volume, and centrifuge volume, III, 161. Simplification of blood examination, III, 723.

Harwood, H. J., Ralston, A. W., and Selby, W. M., high mol. wt. aliphatic amines and their salts. II. Solubilities of primary aliphatic amine hydrochlorides and acetates in ethyl alcohol and benzene, I, 409.

Harwood, P. D. See Swanson, L. E. Hasama, B., action currents in hypothalamus, III, 178.

Hase, T., action of morphine on intestine, III, 616.

Hase, Z. See Asano, M.

Hasegawa, T., action of gelatin gels in sodium chloride solution, I, 467.

Haselwood, L. A. See Wade, N. J.Hasemeyer, H. W. See Otto, H.

Hashida,  $M_{\cdot \cdot}$ , anticarcinogenic action of aniline dyes on experimental hepatoma production. I., Ill, 1025.

Hashimoto, T., fate of acid-fast bacilli injected into peritoneal cavity of animals,

Haskelberg, L., and Bergmann, F., synthesis of lipophilic chemotherapeuticals. IV. N-Acylated arsanilic acids, II, 273.

See also Bergmann, F.

Haskins, C. P. See Morningstar, O., Scott,

G. W., jun., and Whelden, R. M.
Haslam, J., and Roberts, R. F., iodometric determination of alkali: investigation of G. S. Smith's method, I, 88.

Haslewood, G. A. D., metabolism of steroids. II. Isolation of cholestane-3:5:6-triol and other substances from ox liver extracts, II, 251.

Hass, G., and McDonald, F., production of collagen in vitro under experimental

conditions, III, 641.

Hass, H. B., and Huffman, H. C., synthesis of chloroalkyldialkylamines, II, 243. See also Bailey, M. E., and McBee, E. T.

Hasselstrom, T., 1-methylphenanthrene. I. Conversion of retene into 1-methylphenanthrene, II, 190.

and Hampton, B. L., dehydration of 22-dihydrostigmasterol and cholesterol by iodine, II, 97.

and Hopkins, S., jun., nitration of sulphodehydroabietic acid, II, 143.

Hassid, W.Z., Joslyn, M. A., and McCready, R. M., molecular constitution of an insoluble polysaccharide from yeast, Saccharomyces cerevisiæ, II, 87.

See also Ruben, S. Hastings, A. B. See Christensen, H. N., Conant, J. B., Friend, D. G., Hutchens,

J. O., Jandorf, B. J., and Solomon, A. K. Hastings, D. W. See Smith, L. H. Hastings, E. G. See Graham, V. E.

Hata, S., alteration product of abukumalite, I, 228.

Hatch, R. A. See Eardley, A. J.

Hatchette, S., multiple diverticula of duodenum, jejunum, and colon, III, 104. Hatfield, T. N. See Colby, M. Y. Hathaway, J. C., dermatitis caused by

lipstick in metallic containers, III, 699. Hathaway, (Miss) M. See Riegel, E. R.

Hathaway, M. L., and Meyer, F. L., witamin-C metabolism of four pre-school children, III, 1037.

Hatoyama, M. See Shinohara, K.

Hatt, H. H., Pilgrim, A., and Stephenson, (Miss) E. F. M., pinacol-pinacolone rearrangement of p benzopinacols, II, 324. phenyl-substituted

Hatta, Y., influence of liver cell constituents on blood-sugar content of rabbits, III,

Hanffe, K., activity of metals in binary systems showing marked departure from ideal behaviour, I, lo.

Haugaard, G., mechanism of glass electrode, I, 117.

Haurowitz, F., prosthetic group of sulphhæmoglobin, II, 114.

Sarafyan, K., Yenson, M. M., Berkol, S., and Schwerin, P., immunological

investigation on determinant natural groups and substituted proteins, III, 632.

Schwerin, P., and Yenson, M. M., destruction of hæmin and hæmoglobin by unsaturated fatty acids and oxygen, III, 830.

Haury, *V*. G., serum-magnesium in bronchial asthma, III, 176. Protective action of mercury and lead salts against procaine convulsions, III, 787.

Gruber, C. M., and Drake, M. E., toxicity, anæsthetic potency, and pharmacology of a new local anæsthetic β-diethylaminoethyl ester of 4-amino-1-naphthoic acid (naphthocaine), III, 218.

See also Drake, M. E.

Hausberger, F. X., growth and development of grafts of fat tissue primodia of rats, III, 159.

Hauschild, R., racial crosses between negroes and Chinese in Trinidad, III, 489.

Hauschildt, J. See Norris, E. R.

Hause, C. D. Sec Bleil, D. F.

Hause, W. A., and Tocantins, L. M., determination of plasma-prothrombin; variations in normal men and women, III, 556.

See also Miller, F. R.

Hauser, C. R., and Breslow, D. S., mechanism of elimination of water from organic compounds in the presence of bases, II, 98. Condensations. XV. Electronic mechanism of diazo-coup-

ling reaction, II, 130.

and Vermillion, (Miss) G., acylation of aldoximes. VI. Relative case, and mechanism, of conversion of synaldoxime benzoates into nitriles in presence of pyridine and pyridinium chloride, II, 256. Relative ease of elimination of elements of benzoic acid from p-substituted syn-benzaldoxime benzoates in presence of triethylamine, II, 256.

See also Breslow, D. S., and Vermillion,

(Miss) G.

Hauser, E. A., and Le Beau, D. S., colloidal

clays. II., I, 112.
and Niles, G. E., surface tension of capillary-active organic halides, I,  $37\hat{3}$ .

and Swearingen, L. E., ageing of surfaces of aqueous solutions of ovalbumin, I. 257.

Hausmann, M., alcohol and nutrition, III, 32.

Hausner, E., Essex, H. F., Herrick, J. F., and Baldes, E. J., control of coronary blood flow in heart-lung preparation, III, 973.

Haven, F. C., rate of turnover of the lecithins and kephalins of carcinoma 256 as measured by radioactive phosphorus, III, 369.

Haven, F. L. See MeEwen, H. D. Haver, F. E., jun. See Compton, J. Haviland, J. W. See Long, P. H. Hawes, R. C., electronic relay, I, 390.

and Alles, G. A., choline-esterase determination, III, 469. Choline-esterase in blood of allergic patients, III, 649.

See also Miller, Hyman.

Hawk, G. W., pentothal sodium oxygen anæsthesia in general surgery, III, 913.

Hawke, W. A., treatment of convulsions with dilantin sodium, III, 40, 1052.

Hawkes, H. E., jun. See Fairburn, H. W. Hawking, F., three cases of trypanosomiasis relapsing during treatment with Bayer 205 (germanin), III, 215. Local sulphonamides in prevention of gas gangrene, III, 610. Trypanocidal activity and arsenic content of cerebrospinal fluid of sleeping sickness after administration of tryparsamide, III, 696. Local concentration of sulphonamides in wounds, III, 1047.

Hawkins, W. B. See Yuile, C. L. Hawkins, W. L. See Brickman, L., and Patterson, R. F.

Hawley, H., anhydrite as a desiccating agent, I, 60.

Hawn, H. W. See Cusick, P. L.

Haworth, R. D., and Sheldrick, G., constituents of natural phenolic resins. XIX. Action of formalin on 4-keto-6:7dimethoxy-1-3':4'-dimethoxyphenyl-1:2:3:4-tetrahydronaphthalene-2-carboxylic acid, II, 227.

Haworth, W. N., Owen, L. N., and Smith. F., properties of 3:6-anhydroglucose, II, 119.

Hawthorne, A. B., congenital anomalies of urinary tract, underlying urinary infections in children, 111, 364.

Harby, R. O., Shoupp, W. E., Stephens, W. E., and Wells, W. H., thresholds for proton-neutron reactions of lithium, beryllium, boron, and carbon, I, 68. Photo-fission of uranium and thorium,

Hay, J. C., and Roaf, H. E., [subjective] "blue-green" region of spectrum, III,

Hay, R. H., nuclear magnetic moments of <sup>13</sup>C, <sup>135</sup>Ba, and <sup>137</sup>Ba, I, 393.

Hay, S., oxalated finger blood for routine hæmatological examination, III, 415.

Hayakawa, J., influence of partial obstruction of nose on allergic pneumonia, III, 497. Influence of partial obstruction of the nose on pulmonary tuberculosis, III, 537.

Hayashi, H. See Nikuni, Z. Hayashi, N., decrease of raised blood-iron after stopping ferrous carbonate feeding, III, 557. Effect of continuous feeding of inorganic iron [in rabbits], III, 593. Iron content of urine and fæces after administering ferrous carbonate, III, ° 644.

Hayashi, S., Baba, Sigetaka, Nakazima, T. and Sumigawa, R., histological study of function of blood vessel endothelia in lung, III, 422. Histological study of function of alveolar epithelioid cells in lung, III, 425.

Hayashi, Takeshi. See Kokubo, S.

Hayashi, Takesi, biochemistry of Bakanae" fungus of rice. VI. Effect of gibberellin on activity of amylase in germinated cereal grains, III, 47.

Hayashi, Teru. See Uber, F. M. Hayasi. See under Hayashi.

Hayden, A. A., hearing aids, III, 12. Hayden, R., development and prevention

of myopia at United States Naval Academy, III, 501.

Hayek, H. von, periarterial lymphatic spaces in human lung, III, 237. Specialised sphincter in arteries of human lung, III, 237.

Hayes, E. T., ferromagnetic properties of hæmatite, I, 405.

Hayes, H. T., and Hunter, L., associating effect of the hydrogen atom. VII. N-H-N bond; derivatives of pyrazole and indazole, II, 76.

Hayes, J. N. See Leetch, H. W.

Hayes, W., and Sachs, H., anticomplementary action of serum and Wassermann reaction, III, 143.

Haygard, C. E., pernicious anæmia and carcinoma of stomach, III, 878.

Haymaker, W. See Anderson, Evelyn. Hayman, J. M., jun., and Martin, J. W., jun., acute nephritis, III, 108.

Hayman, M. Sec Wilmanns, R. M. Haynes, A. See Rigdon, R. H.

Haynes, S. K., effect of neutron energy on total decay curves of fission products, I, 314.

Haynes, W. See Bailey, P.

Hays, E. E. See Last, J. H. Hays, H. W. See Remington, J. W., and Swingle, W. W.

Hays, J. T. See Niemann, C. Haythorn, S. R., Ray, W. B., and Wolf, R. A., primary fibromyxosarcomas of heart and pulmonary artery, III, 591. Hayward, J. C. See Kark, R.

Hazard, R., Cheymol, J., and Quinquaud. A., effect of sulphonation on action of dinitro-a-naphthol in suppressing apnœa,

III, 613.

Hazel, F., effects of electrolytes in hydro-phobic systems. I. Electric mobility and stability. II. Sol concentration and electrolyte stability. III. Mixtures of

electrolytes; ion antagonism, I, 335.

Hazelton, L. W., influence of aloes and podophyllum on flow of bile, III, 912.

Hazen, H. H., Hiscock, I. V., Pelouze, P. S., Snow, W. F., Zinsser, H., and Everett, R. H., chemical and mechanical prevention of syphilis and gonorrhea, III, 298.

Hazen, J. S. See Kennedy, A. S.

Hazlehurst, T. H., pictures of acid-base reactions, I, 84. Acid-base reactions, their analogy to oxidation-reduction reactions in solution, I, 123.

Hazlet, S. E., and Kornberg, H. A., m-diphenylyl acetate, II, 249. Bromination of o-diphenylyl acetate, II, 286.

Hazzard, G. See Bates, O. K.

Healea, (Miss) M., and Houtermans, (Miss) C., relative secondary electron emission due to He, Ne, and A ions bombarding a hot nickel target, 1, 1. Effect of temperature on secondary electron emission of nickel, I, 395.

Heaps, C. W., discontinuities of magnetostriction and magnetisation in nickel, I, 294.

Heard, K. M., avertin-nitrous oxide anæsthesia in thyroidectomy, III, 1051.

Heard, R. D. H., comparison of infantile and adult rat methods for assay of œstrus-inducing gonadotropic substance, III, 352.

and Hoffman, M. M., steroids. III. Isolation from equine pregnancy urine of Δ<sup>5:7:9</sup>-æstratrien-3-ol-17-one, II, 229.

Hearne, G., and De Jong, H. W., derivatives of allylic chlorides;  $\beta$ -methylglycerol and its derivatives, II, 277.

Tamele, M. W., and Converse, W., derivatives of allylic chlorides; reactions of methallyl alcohol, II, 238.

See also Burgin, J., and Tamele, M. W. Heath, C. W., and Taylor, F. H. L., nitrogen metabolism in anæmia during regeneration of blood, III, 121.

Heath, J. C. See Atkinson, E. R.

Heath, L. See Schwartz, P. Heath, O. V. S. [with Penman, H. L.], carbon assimilation and stomatal movement. II. Resistance porometer, III, 1082.

Heath, P., secondary glaucoma due to the lens, III, 569.

See also Sachs, E.

Heath-Brown, B., Heilbron, I. M., and Jones, E. R. H., sterol group. XLIL Constitution of zymosterol, II, 41.

Heathcote, R. S. A. Sec Duguid, A. M. E. Heatley, N. G., adjustable agitator for

laboratory use, I, 486. See also Abraham, E. P., and Chain, E. Hebald, S. See Stull, A.

Hebb, C. O., bronchomotor responses to stimulation of stellate ganglia and to injection of acetylcholine, III, 175. See also Daly, I. de B.

Hecht, M. See Antonoff, G.

Hecht, R. See Sulzberger, M. B.

Hecht, S., and Mandelbaum, J., dark adaptation and human vitamin deficiency, III, 91.

and Pirenne, M. II., energy and visual threshold, III, 748.

Hechter, O. See Sookin, S.

Heckel, N. J., and Steinmetz, C. R., production of azoospermia in man by a-cestradiol benzoate, III, 578.

Heckler, F. See Widenbauer, F

Hecksteden, W., effect of head injury on alcohol metabolism, III, 380. Heddle, R. D., and Brawn, J. S., phosphorus

and iodine contents of British Columbia fish oils, III, 367.

See also Brawn, J. S.

Heddle, W. J., and Percival, E. G. V., fructosephenylmethylhydrazone, II, 34.

Hedenberg, M. See Goodrich, H. B. Hedrick, J. E. See McMillen, J. H.

Hedvall, J. A., and Andersson, K., reactions in solid state between calcium oxide and different preparations of titanium dioxide, I, 277.

See also Zimens, K. E.

Heegaard, E. See Horowitz, N. H. Heege, F. H. ter, allergic affections in tropics, III, 710.

Heeren, R. H. See Gordon, J. E. Heffer, E. T., electrocardiogram in rheumatic fever, III, 559.

Heffner, R. R., Page, R. C., and Frey, A., urinary excretion of silica in man following oral administration of magnesium trisilicate. II. In peptic ulcer and pernicious anæmia, III, 1015.

Hefke, H. W., Roentgenological study of anomalies of hands in 100 cases of

mongolism, III, 410.

Hefter, J. M., nitrogenous extractives of muscle, III, 849.

and Kartaschov, A. I., chemistry of muscle contraction, III, 849.

Hegarty, C. P. See Gjullin, C. M. Hegedus, B. See Ruggli, P.

Hegemann, G., streptococcal toxins, III,

Heggie, R. See Milas, N. A.

Hegglin, R., side-actions of sulphapyridine, III, 36. Heart disturbances in diabetes, III, 171.

See also Löffler, W.

Hegler, C., treatment of lobar pneumonia with sulphapyridine, III, 34.

Hegner, R., and Dobler, M., effect of oxygen at different pressures on avian malarial infections, III, 848.

Hegsted, D. M., Briggs, G. M., Elvehjem, C. A., and Hart, E. B., rôle of arginine and glycine in chick nutrition, III,

Hier, S. W., Elvehjem, C. A., and Hart, E. B., growth factors for chick in cartilage, III, 683.

Mills, R. C., Elvehjem, C. A., and Hart, E. B., choline in nutrition of chicks, III, 516.

Oleson, J. J., Mills, R. C., Elvehjem, C. A., and Hart, E. B., dermatitis in chicks distinct from pantothenic acid deficiency, III, 286.

Hehre, E. J., production from sucrose of a serologically reactive polysaccharide by a sterile bacterial extract, III, 927.

Heidelberger, M., quantitative method for estimation of complement (alexin), III,

Davis, B., and Treffers, H. P., phosphorylated egg-albumin, II, 114.

Sec also Karjala, S. A., and Treffers, .H. P.

Heidrick, A. F. Sec Livingstone, H. M.

Heidt, L. J. See Hall, A. C.
Heifetz, C. J., Probstein, J. G., and Gray,
S. II., significance of increased blooddiastase, III, 971. Blood-diastase and impaired liver function, III, 971.

Heiken, C. A. See Freeman, J. T. Heiks, R. E. See Garrett, A. B.

Heilbron, I. M., Jones, E. R. H., Roberts, K. C., and Wilkinson, P. A., sterol group. XLIII. Unsaponifiable portion of acetone extract of plantation rubber, II, 251.

See also Heath-Brown, B.

Heilbrun, N., and Hubbard, R. S., measurement of chloroform-soluble fraction of bilirubin in persons with jaundice and its significance, III, 272.

See also Hubbard, R. S.

Heilman, D., and Herrell, W. E., hemolytic effect of gramicidin, III, 725.
Heilman, F. R., virus of psittacosis, III.

145.

Heilmann, E. L. See Ketelaar, J. A. A. Heilmeyer, L., and Koch, H., absorption of iron under normal and pathological

conditions, III, 71. Heim, J. W. See Armstrong, H. G. Heiman, V., Carver, J. S., and Cook, J. W., determining gross value of protein concentrates, III, 371.

See also Carver, J. S. Heimann, H., and Ford, C. B., chronic benzene poisoning in plastics industry, III, 384.

See also Silverberg, M. G.

Heinemann, B., colorimetric determination of lactic acid in milk, III, 450.

Heinemann, M., distribution of ascorbic acid between cells and serum of human blood, III, 493.

Heinemann, S. D. See Ruzicka, L. Heinen, H. J. See Lough, S. A. Heines, V., ultramicroscope cell, I, 222. Heino, E. K. See Tikka, J. Heinrich, P. See Chardonnens, L.

Heintzelman, J. H. L., and Evans, F. A.,

"chronic appendicitis," III, 679.

Heinze, R., and Wolff, Y., cell changes in preserved blood, III, 329.

Heiple, H. R., and Lewis, Bernard, reaction of hydrogen and oxygen in presence of silver; third explosion limit, I, 173.

Heishman, J. O., and Miller, W. T., action of sulphanilamide on mastitis streptococci in vitro, III, 35.

Heisler, W., drug rash [from nirvanol] in unilateral chorca minor, III, 465. Heiss, J. H., jun. See Baker, W. O.

Heitler, H. See Powell, C. F.

Heitler, W., influence of radiation damping on scattering of light and mesons by free particles. I., I, 361.

and Ma, S. T., inner excited states of proton and neutron, I, 25.

Heizer, E. E. See Phillips, P. H. Helff, O. M., and Mellicker, M. C., amphib-

ian metamorphosis. XIX. Development of tongue in Rana sylvatica, including the histogenesis of "premetamorphie" filiform papillæ and mucous glands. XX. Development of fungiform papillæ of tongue in Rana sylvatica, III, 547, 639.

Helff, O. M., and Stark, W., amphibian metamorphosis. XVIII. Development of dermal plica in Rana sylvatica, III, 413. Helfrich, L. S. See De Takats, G.

Hellbaum, A. A., and Greep, R. O., qualitative changes in gonadotropic complex of rat pituitary following removal of testes, III, 97.

Heller, C. G. See Heller, E. J.

Heller, E. J., Heller, C. G., and Sevringhaus, E. L., gonadotropic hormone in human male urine, III, 763.

Heller, G., and Alvari, G., gangrene of extremities in newborn, III, 845.

Heller, H., pituitary antidiuretic hormone in vertebrate series, III, 267. Multiplicity of pituitary hormones, III, 351. Water balance, antidiuretic activity, and posterior pituitary gland (frog), III, 1008. Heller, H. A. See Haring, M. M.

Heller, R., theory of van der Waals molecules, I, 151.

Heller, V. G. See MacVicar, R. Heller, W., non-isothermal gel-sol-gel transformation of mixed gelatin-methylcellulose systems, I, 208.

Hellman, L. M., Moore, W. T., and Shettles. L. B., plasma-prothrombin in newborn infant. III. Vitamin-K activity of various naphthaquinol derivatives, III, 160.

See also Maumenee, A. E.

Hellmann, A. M., and Ciner, L. F., inhibiting action of testosterone propionate on post-partum lactation, III, 508. Hellund,  $\hat{E}$ . J., phase series, I, 191.

Hellwege, (Fr.) A., electron transitionvibration combinations in spectra of

praseodymium salts, I, 26.

Hellwig, C. A., thymic death, III, 754.
Mallory's aniline-blue stain in histophysiological diagnosis of goitre, III, 957. Does calcium neutralise thyroxine? III, 1002.

Helmer, D. E. See Dolman, C. E. Helmholz, A. C., Pecher, C., and Stout,

P. R., radioactive Rb from deuteron bombardment of Sr, I, 314.

Helmholz, H. F., sulphathiazole as urinary antiseptic, III, 125. and Larson, N., sulphathiazole in urinary

infections, III, 907.

Helmholz, L. See Rogers, M. T. Helmkamp, R. W., Tanghe, L. J., and Plati, J. T., Michael condensations involving benzyl cyanide, II, 227.

Helwig, E. R., multiple chromosomes in Philocleon anomalus, III, 825. Helwig, F. C., liver disease, III, 768.

Hemingway, A. See Slade, H. D., and Wood, H. G.

Hemmeler, G., serum-iron in jaundice. III, 325.

Hemmendinger, A., proton-induced radioactivity of manganese, I, 69.

Hemphill, R. E., and Reiss, M., significance of endocrines in involutional melancholia, III, 666.

and Walter, W. G., epanutin [sodium diphenylhydantoinate] and convulsion therapy, III, 616.

Hemplemann, L. H., staining reactions of mucoproteins, III, 69.
Hench, P. S., Bauer, W., Dawson, H., Hall, F., Holbrook, P., Key, J. A., and McEwen, C., rheumatism and arthritis; review of American and English literature for 1939, 111, 770.

Hendel, J. M., and Ochsenreiter, O., vapour density apparatus, I, 132.

Henderson, A. T., practical : spects of

allergy, III, 313.
Henderson, E. See Anderson, Evelyn. Henderson, E. P., determination of nickel and cobalt in meteoric iron, I, 281.

Henderson, E. W., comparison of dry milk, meat and bone meal, and combinations of both as protein supplements for egg

production, III, 22.

Henderson, H. H. See McLean, C. C.

Henderson, J. A. See Graham, R.

Henderson, J. E., and Rubens, S. M.,

anode spots in oxygen, I, 312. See also Fleming, (Miss) G. M.

Henderson, J. L., gargoylism, III, 411.Henderson, M. C., heat of fission of uranium, I, 144.

Henderson, M. D., and Mitchell, H. S., effect of dry heat on anticataractogenic quality of proteins, III, 668. See also Moore, E. L.

Henderson,  $R.\ A.$  See Rudesill,  $C.\ L.$  Henderson,  $R.\ G.$ , inhalation anæsthesia for tonsillectomy, III, 218.

Henderson, T., aqueous secretion in mammalia, III, 258. Intra-ocular pressure in mammalia, III, 747.

Henderson, V. See Astrowe, P. S. Henderson, W. J. See Doran, R. L. Henderson, Y., and Turner, J. M., artificial respiration and inhalation, III, 736.

Hendricks, S. B., base exchange of clay mineral montmorillonite for organic cations and its dependence on adsorption due to van der Waals forces, I, 165.

See also Jefferson, M. E. Henle, W., and Chambers, L. A., serological specificity of heavy particles derived from normal organs, III, 111. Serological activity of extra-embryonic fluids of chick infected with virus of influenza A, III, 1075.

Henne, A. L. See McBee, E. T. Hennessy, D. J., chemical determination of vitamin-B<sub>1</sub>, III, 596.

Henning, N., and Keilhack, H., basophil granules in bone-marrow erythrocytes in lead poisoning, III, 71.

Hennion, G. F., and Irwin, C. F., solvent effects in addition reactions. II. Addition of hydrogen bromide and

chloride to a-pinene, II, 172. See also Irwin, C. F., and Zoss, A. O.

Henny,  $G.\ C.$  See Spiegel-Adolf, M. Henrici,  $A.\ T.$ , characteristics of fungous diseases [of animals], III, 1064. Henry, B. S. See Friedman, C. A. Henry, K. M., Kon, S. K., Goodwin, T. W.

and Morton, R. A., vitamins-A and  ${ extit{-}}D$  in dripping, III, 456.

See also Braude, R. Henry, N. W., technique and comparative values of cross-agglutination methods: centrifuge, slide, and hanging-drop technique, III, 312.

Hensel, M. E., and Sheldon, J. M., complement fixation with specific allergens in hay fever, III, 1080.

Henshaw, P. S., radiation and the cell, III. 592. Biological significance of tolerance dose in X-ray and radium protection, III, 1030.

and Golomb, I. M., responses of Droso. phila pupe to X-rays, III, 45. Hensley, C. L. See Colbert, J. C.

Hensley, J. W. See Germann, F. E. E. Henstell, H. See Altschnle, M. D.

Henyey, L. G., and Keenan, P. C., interstellar radiation from free electrons and hydrogen atoms, I, 312.

Henyi, A. See Moritz, D. von.

Henze, H. R., and Holder, C. B., synthesis
of N-disubstituted 5-phenylethyl-5aminomethylhydantoins, II, 334.

and Long, L. M., phenylhydantoins, II, 332. 5-4'-Diphenylyl-5-R-hydantoins and 4:4'-diphenylylenebis-5:5-R-hydantoins, II, 334.

See also Long, L. M., Rogers, B. G., and Wilson, R. C.

Hepburn, J. R. I., and Garside, J. E., thermodynamic study of bivalent metal halides in aqueous solution. II. Activity coefficients of calcium, strontium, and barium chlorides at 25°, I, 414.

Hepp, J. A., treatment with stilbostrol, III. 872.

Herbert, D. See Green, D. E.

Herbert, F. K., determination of prothrombin in human plasma, III, 328. Miller, H. G., and Richardson, G. O.,

chronic renal disease, secondary parathyroid hyperplasia, decalcification of bone, and metastatic calcification, III, 1021

Herbut, P. A., intercapillary glomerulo-sclerosis, III, 585.

Herick, W. van. See Howitt, B. F.

Hering, E., infantile pneumonia and serum therapy, III, 611.

Herington, E. F. G., ethylene and acetylene adsorption in hydrogenation catalysis, I, 373.

Heritage, A. C. See Meyer, B. S. Heritsch, H., structure of libethenite,

Cu<sub>2</sub>(OH)PO<sub>4</sub>, I, 352. Herlitz, C. W., vitamin-C standard in healthy children and in children suffering from gingivitis, III, 27.

Herman, C. M., isopropyl alcohols as dehydrating agent and preservative for biological specimens, III, 1086.

Herman, F. See Hetenyi, G. Herman, R. C., and Hofstadter, R., photoconductivity of a natural willemite

crystal, I, 93. Hermann, F. J. See Lakin, H. W.Hermann, H., Jourdan, F., Morin, G., and

Vial, J., blood pressure in dog following destruction of spinal cord and vasomotor centres, III, 171.

Jourdan, F., and Vial, J., chronic arterial hypertension in dog produced by coating kidney with cellophane, III,

Hermann, C., cholesterol content adrenals of newborn and sucklings, III, 1005.

Hermann, R. N. See Martin, Austin R. Hermans, P. H., analogy between mechanism of deformation of cellulose and that of rubber, I, 334. Similarity of cellulose with rubber and production of artificial cellulose threads as a macromolecular process, I, 467. Hermans, T. G., direction of visual after-

image drift, III, 749. Heron, A. E. See Wilson, H. N. Heros, M. See Kling, A.

Herr, D. S., Matheson, M. S., and Walters, W. D., photochemical decomposition of acetone in presence of hexadeuterodiacetyl, I, 342.

Herrell, W. E., and Brown, A. E., treatment of septicemia, III. 460.

See also Hargraves, M. M., and Heilman, D.

Herren, E. Y., and Edwards, J. E., diplomyelia (duplication of spinal cord), III,

Herren, R. Y. See Wagenen, W. P. van. Herrick, C. J., development of optic nerves of Amblystoma, III, 866.

Herrick, J. F. See Hausner, E. Herrin, R. C., calorigenic action of ammonium salts in human subject, III, 30.

Herring, C., thermodynamic interpretation of thermionic and thermo-electric pheno-

mena, I, 312. Herring, V. Seo Anderson, Evelyn.

Herriott, R. M., isolation, crystallisation, and properties of pepsin inhibitor, III, 387. Reaction of Folin's reagent with proteins and biuret compounds in presence of cupric ion, III, 948.

Desreux, V., and Northrop, J. H., fractionation of pepsin, III, 706.

Herrman, M. F. See Urbach, E. Herrmann, E., electrolytic deposition of soft y-manganese, I, 53.

Herrmann, G., kidney parenchyma, circulating blood plasma, and tissue fluids in diuresis, III, 202. Herrmann, H. See Werle, E.

Herrmann, J. B., hypothermia and toxicity of drugs, III, 788.

Herrmann, L. G. See Moss, H. K. Herrmann, M. See Iveković, H.

Herrmann, R. See Naville, F.

Herrnberger, K. See Horstmann, F.
Herron, P. H., fatal [Landry type] paralysis following antirable treatment, III, 858.

Hersch, P. See Mainzer, F. Herschel, V. E. See Petrenko-Kritschenko, P. I.

Herschlag, V. E., volumetric determination of gold by means of potassium iodide and arsenious acid, I, 484.

Hershberg, E. B., Wolfe, J. K., and Fieser, L. F., polarographic determination of dehydroisoandrosterone and other 3hydroxy-45-steroids, II, 308. Polarographic determination of natural products, III, 235.

See also Wolfe, J. K.

Hershey, A. D., and Bronfenbrenner, J., influence of host resistance on virus infectivity as exemplified with bacteriophage, III, 1074.

Hershkowitz, J., structure of tongue of Lichanura roseofusca, III, 485.

Hertz, S., and Oastler, E. G., assay of blood and urine for thyrotropic hormone in thyrotoxicosis and myxœdema, III, 187.

and Roberts, A., radioactive iodine as indicator in thyroid physiology. III., Ill, 753.

Hertzman, A. B., vertical illuminator for student microscope, III, 483. Student sphygmoscope, III, 653. Relative responses of dorsal metacarpal, digital, and terminal skin arteries of hand in vasoconstrictor reflexes, III, 976.

and Dillon, J. B., distinction between arterial, venous, and flow components in photo-electric plethysmography in man, III, 250.

Hervey, R. J., and Greaves, J. E., nitrogen fixation by Azotobacter chroococcum in the presence of soil protozoa, III, 926.

Herwick, R. P., and Koppanyi, T., atropinelike action of pilocarpine, III, 910. See also Koppanyi, T.

Herzberg, G., presence of HNC in hydrogen cyanide, I, 4.

See also Douglas, A. E.

Herzberg, K., and Thelen, A., demonstration and way of increase of virus of Shope's rabbit fibroma, III, 452.

Herzfeld, K. F., unmixing effect of sound waves on liquid mixtures, I, 407.

See also Franck, J., and Lyddane, R. H. Herzog, G., cloud tracks of cosmic rays in

substratosphere, I, 314. and Bostiek, W. H., cloud-chamber pictures of cosmic rays at 29,000 feet altitude, I, 315.

Heselson, J., sulphathiazole in staphylo-

coccal septicæmia, III, 607.

Hess, C. B., specific heats of aqueous solutions of sodium and potassium chlorides at several temperatures. III. Dilute sodium chloride solutions at 25°,

Hess, F. L., spodumene pegmatites of N. Carolina, I, 182.

Hess, G. H., infant incubator, III, 483.

Hess, H. H., and Phillips, A. H., optical properties and chemical composition of magnesian orthopyroxenes, I, 353.

Hess, J. H., Poncher, H. G., Wade, H. W., and Ricewasser, J. C., cow's milk treated by base exchange for infant feeding, III, 208.

Hess, S. M. See Emerson, W. S. Hess, V. F. See Altmann, G. O. Hess, W. C., and Sullivan, M. X., glycyl-lmethionine, II, 161.

See also Sullivan, M. X.

Hess, W. W. See Wolfrom, M. L. Hesse, E., action of aldehyde and aldehyde acids on frog's heart, III, 77.

and Meissner, G., chemotherapy of tuberculosis with silogran, III, 37.

Hesser, F. H., Langworthy, O. R., and Kolb, L. C., gastric activity released from cortical control, III, 1013. Hessler, W., effect of lack of vitamin-E

on structure and reactivity of the rat's uterus, III, 522. Hester, H. R. See Graham, R.

Hester, J. B., manganese and vitamin-C. III, 778.

Heston, B. O., and Wood, S. R., method for conducting the Kjeldahl digestion, I,

Heston, W. E., lung tumours and heredity. I., III, 279.

Hetenyi, G., and Herman, F., absorption of intracutaneously injected isotonic solutions of calcium salts, III, 18.

Hetherington, A. W., and Ranson, S. W., hypothalamic lesions and adiposity in rat, III, 342.

Hetler, D. M. See Bronfenbrenner, J.

Heublein, G. W., Pendergrass, E. P., and Widmann, B. P., roentgenographic findings in neurocutaneous syndromes, III, 299.

See also Elsom, K. O.

Heubner, W., chemotherapy of infectious diseases, III, 606. "Inactive" hæmoglobin in blood, III, 830.

Hevesy, G., and Jacobsen, C. F., rate of passage of water through capillary and cell walls, III, 331.

See also Hahn, L.

Hewell, B. See Furcolow, M. I. Hewett, C. L., and Martin, R. H., poly-cyclic aromatic hydrocarbons. XXVI. II. 8.

See also Badger, G. M., and Cook, J. W. Hewitt, E. A. See Jones, L. M.

Hewitt, R. See Otto, G. F.
Hewitt, W. F., jun., and Van Liere, E. J.,
thyroid weight during pregnancy and
adrenal weight in late pregnancy, III, 263. Water distribution in body during pregnant and puerperal state, III, 677.

Hey, D. H. See Gillam, A. E.

Heybroek, N. J. See Crefeld, S. van. Heyd, J. W. See Whitmore, F. C.

Heydenburg, N. P., and Ramsey, N. F.,

scattering of 1-3-Me.v. protons by helium, I, 360. Heyerdale, W. W., and Cannon, E. E., neurodermatitis associated with incompetent greater saphenous veins, III,

977.Heyl, (Miss) D. See Cope, A. C.

Heymann, E., and McKillop, G. C., lyotropic series. III. Adsorption of salts on cellulose, I, 165.

See also Allison, L. R.

Heymann, W., and Enright, L. S., artificial fever therapy in infants and children by intravenous injection of typhoidparatyphoid vaccine and pyrifer, III,

Heymans, C., and Delaunois, A. L., effect of sino-carotid pressure reflexes on metabolism, III, 422.

Heyningen, W. E. van, proteinases of

Clostridium histolyticum, III, 303.

Hiatt, E. P., extreme hypochloræmia in dogs induced by nitrate administration, III, 7.

Hibbard, R. P. See Benne, E. J.

Hibbert, H. See Brickman, L., Creighton, R. H. J., Lovell, E. L., MacInnes, A. S. Neish, A. C., Patterson, R. F., and Perry, S.

Hibbs, D. K., and Osborne, S. L., shortwave diathermy in chronic prostatitis, III, 1059.

Hicken, N. F., and Crellin, H. G., congenital atresia of the extrahepatic, bile ducts, III, 514.

See also Best, R. R. Hickey, F. C., ionisation of lactic acid in aqueous sodium chloride solutions from

0° to 37.5°, I, 264. Hickey, R. J. See Fulmer, E. I. Hickling, A., electrode polarisation. III. Theoretical implications of rate of growth of polarisation potentials, I,

and Rodwell, F., elimination of formaldehyde in analysis of formaldehyde-

formic acid mixtures, II, 80. and Salt, F. W., hydrogen overvoltage at high current densities. I. Influence of electrode material, current density, and time, in aqueous solution. II. Influence of the solvent. III. Influence of oxygen. IV. Influence of concentration, anions, temperature, and catalytic poisons. V. Decay of hydrogen overvoltage, I, 50, 269, 301, 379, 418.

Hickman, K. C. D., trends in design of fractionating pumps, I, 179.

Hickmans, E. M. See Baar, H. S.

Hicks, E. M. See Sampey, J. R. Hicks, J. D., hæmorrhage in obstructive jaundice; significance of prothrombin and vitamin-K therapy, III,

Hicks, V. See Partridge, E. P. Hickson, W. S. E. See Bailey, K. C.

Hidayetulla, M. S., Shah, R. C., and Wheeler, T. S., chalkones: production of 1-keto-2-aryl-1:2:3:4-tetrahydronaphthalenes from chalkone dibromides through related  $\beta$ -aroyl- $\alpha$ -arylpropionitriles, II, 137.

Hieger, I., examination of human tissue for carcinogenic factors, III, 112.

Hier, S. W. See Hegsted, D. M.

Hiestand, W. A., Ramsey, H. J., and Hale, D. M., effects of eigarette smoking on metabolic rate, heart rate, oxygen pulse, and breathing rate, III, 919.

and Randall, W. C., species differentiation in respiration of birds following carbon dioxide administration, and location of inhibitory receptors in upper respiratory tract, III, 736.

Higasi, K., solvent effect of dipole moments of disubstituted benzenes, I, 243. Dipole moments and molecular structure of diphenylene dioxide and phenoxthin, I,

Higgins, C. C., Gardner, W. J., and Nosik, W. A., suprapubic puncture in treatment of bladder paralysis, III, 770.

McCullagh, D. R., Hovorka, F., and Mendenhall, E. E., electrometric and conductometric studies of neutralisation reactions of phosphoric acid; neutralisation of very dilute solutions of phosphoric acid with sodium hydroxide, I, 483.

Higgins, E. R. See Fuller, J. E. Higgins, G. M. See Scheifley, C. H. Higgs, A. J. See Pierce, J. A.

Higinbotham, N. L. See Woodward, H. Q. **Higuti,** I., critical condition for drop form-

ation and capillary condensation, 1, 256. Hilber, H., local inhibition of tuberculin reaction, 111, 630.

Hilberry, N., energy distribution and composition of primary cosmic-ray particles, I, 315. Extensive cosmic-ray showers and the energy distribution of primary cosmic rays, I, 361.

Hilcken, J. A. See Gall, E. A., and Lingley, J. R.

Hildebrand, A. G., Montgomery, H., and Rynearson, E. H., necrobiosis lipoidica diabeticorum, III, 186.

Hildebrand, J. H. See Pitzer, K. S. Hilditch, T. P., and Jasperson, H., rates of oxidation of isomeric di- and tetrahydroxystearic acids by lead tetraacetate, II, 119.

and Maddison, L., acids of phosphatides of cow's milk fat, III, 276.

and Pedelty, W. H., sheep body fats. I. Component acids of fats from animals fed on high and low planes of nutrition, III, 1022

and Zaky, Y. A. H., sheep body fats. II. Component glycerides of perinephric and external tissue fats from the same animal, III, 1022. See also Atherton, D.

Hildreth, H. R., insertions of levator palpebræ muscle, III, 746.

Hill, A. E., Dunham, G. S., and Ricci, J E., distribution of isomorphous salts in solubility equilibrium between liquid and solid phases, I, 36.

Soth, G. C., and Ricci, J. E., solid solutions of picromerites at 25°, I, 48.

Hill, A.J. See Francis, A.W.Hill, D.G. See Jordan, W.E.Hill, D.K., blood volume determination in shocked patients, III, 329.

McMichael, J., and Sharpey-Schafer,

E. P., serum and saline infusions, III, 330.

Hill, E. See Koehler, A. E.

Hill, G. A., Nelson, W. C., Dunnell, R. L., and Moody, L. S., hexabenzylethane, II, 247.

Hill, H., and Roach, W. A., injection for diagnosis of mineral deficiencies in tomato, potato, and broad bean, III, 61.

Hill, J. M., and Pfeiffer, D. C., economical desiceating process suitable for preparation of concentrated plasma or serum for intravenous use: the adtevac process, III, 74.

See also Finkelstein, R.

Hill, L. W., amino-acid feeding in allergic infants, III, 1031.

and Pratt, H. N., sensitivity to easein in infantile eczema, III, 633.

Hill, R. D., production of <sup>3</sup>He, I, 94.

Hill, R. T., fate of ovaries which have been grafted in ear for long time, III, 440.

Hill, S. E. See Osterhout, W. J. V. Hill, IV. S., absorption of fluorescent light by fluroescent liquids, I, 192.

Hillary, B. B., Feulgen reaction in cytology. I. Effect of fixatives on reaction, III, 641.

Hiller, J. E., crystal structure of valleriite, I, 229. Falkmanite, I, 353.

and Hofmann, W., X-ray methods of determination and investigation of lead stibnites, I, 353.

Hillier, J., Fresnel diffraction of electrons as a contour phenomenon in electron supermicroscope images, I, 140.

Hills, G. M. See McAlpine, D. Hilton, E. L. G., and Eden, K., xanthomatosis of skeleton in adult, III, 1040.

Himel, C. M. See Marvel, C. S.

Himmelfarb, B. M. See Bezrukov, P. L. Himmelsbach, C. K., thiamin in treatment of morphine abstinence syndrome in man, III, 222. Effects of chemical changes on addiction characteristics of drugs of the morphine, codeine scries, III, 295.

Himwich, H. E., Bowman, K. M., Daly, C., Fazekas, J. F., Wortis, J., and Goldfarb, W., changes in cerebral blood flow and arterio-venous oxygen difference during insulin hypoglycæmia, III, 566.

Fazekas, J. F., and Alexander, F. A. D., effects of cyanide and iodoacetate on survival period of infant rats, III,

Sykowski, P., and Fazekas, J. F., comparative study of excised cerebral tissues of adult and infant rats, III,

See also Fazekas, J. F., Libet, B., and Wortis, J.

Hind, H. G. See Shaw, G. E. Hinden, E. See Davis, E. Hindmarsh, W. L., [stock poisoning by] peach-leaf poison bush, IIÎ, 297.

Hine, C. H., and Kozelka, F. L., metabolism of diphenylhydantoin, III, 914.

Hines, E. A., jun., and Barker, N. W., arteriosclerosis obliterans, III, 251.

and Lander, H. H., hypertension in renal disease, III, 654.

See also Dry, T.J.

Hines, H. M. See Snow, J. E.

Hines, M., movements elicited from precentral gyrus of adult chimpanzees by stimulation with sine wave currents,

and Boynton, E. P., maturation of "excitability" in precentral gyrus of young monkey, III, 662.

Hinkel, L. E. See Ayling, E. E. Hinrichs, M. A., effects of physical fatigue in peripheral circulation in athletes, III,

Hinsberg, K., and Breutel, E., comparison of Widmark and Friedemann-Klaas blood-alcohol quantitative tests, III, 223. Hinsey, J. C. See Hare, W. K.

Hinshaw, H. C., treatment of psittacosis with sulphapyridine, III, 124.

and Boothby, W. M., syndrome of hyperventilation: its importance in aviation, III, 655.

See also Feldman, W. H.

Hinshelwood, C. N. See Poole, E. A., and Smith, R. E.

Hippel, A. von, and Lee, G. M., scattering, trapping, and release of electrons in sodium chloride and in mixed crystals of sodium chloride and silver chloride, I, 328.

and Maurer, R. J., electric breakdown of glasses and crystals as a function of temperature, I. 328.

Hiraga, S. See Kimura, S. Hiraki, Y., reactions of nitric oxide and oxygen at low pressures and low temperatures. I.—IV., I, 478.

See also Sasaki, N.

Hirano, S., determination of a small quantity of chlorine by iodometry, I, 279.

Hirohasi, S., oxygen consumption of atrophied muscle, III, 851.

Hirose, Z., denaturation of sericin. II. Isoelectric point of α-sericin. IV. Relation of denaturation of α<sub>5-8</sub>-sericin and  $\alpha_{4\cdot 4}$ -scriein, III, 301, 771.

Hirsch, A. A., rubber rim Whipple cell for plankton counts, III, 49. Wedge-type

 $p_{\rm H}$  colorimeter, I, 222.

Hirsch, E. F., relation of chemical composition of lipins to characteristic tissue lesions, III, 586.

See also Weinhonse, S.

Hirsch, W., Takata reaction in heart diseases and nutritional disorders of sucklings, III, 76. See also Bernfeld, K.

Hirschberger, C., atypical leukæmia, III, 72. Hirschboek, J. S., delayed blood coagulation and absence of clot retraction in collodion-lined vessels, III, 556.

Hirschfeld, J. IV., Tennant, R., and Oughterson, A. W., effect of colchicine and X-ray on a transplantable mammary carcinoma in mice, Ill, 281. Hirschfelder, J. O. See Hulburt, H. M.

Hirschi, H. See Hugi, E.

Hirschmann, D. J. See Rogers, R. E.

Hirschmann, H., preparation of a pregnane-3(a):17:20-triol, II, 361. Urinary sterols of ovariectomised women, III. 194. Isolation of isoandrosterone from urine in ease of virilism, III, 575. See also Bachman, C.

Hirst, E. L., Jones, J. K. N., and Campbell, W. G., e-galactan of larch wood, II, 87. See also Barker, C. C.

Hirszfeld, L., and Amzel, transitional forms

of blood groups, III, 74. Hirwe, N. W., and Deshpande, J. S., chloralamides. VIII. Condensation of toluamides with chloral. IX. Reactivity of a-chlorine atom in a-chloroehloraltoluamides, II, 290.

Gavankar, (Miss) K. D., and Patil, B. 1., chloralamides. II. Chloral-nitro- and -bromo-salicylamide. X. Reactivity of a-halogen in a-halogeno-chloralnitroand -bromo-methoxybenzamides, II, 13, 322.

and Knlkarni, P. Y., chloralamides. VII., II, 205.

and Patil, B. V., chloralamides. VII. Reactivity of a-hydroxy-group in chloralbromosalicylamides and their methyl ethers, II, 290.

Hirwe, N. W., and Rana, K. N., chloralamides; action of potassium cyanide on a-chloro-chloral-chloro- and -bromo-2methoxybenzamides and hydrolysis of resulting a-cyano-compounds, II, 13.

Hiscock, I. V. See Hazen, H. H. Hiskey, C. F., and Meloche, V. W., colour phenomena associated with quinquevalent molybdenum solutions. Effect of various electrolytes, I, 298.

Hitchings, G. H., determination of guanine and xanthine, II, 276.

Hivohasi, S., oxygen consumption in atrophied muscle, III, 739.

Hixon, R. M. See Gottlieb, D.

Hjort, A. M., De Beer, E. J., and Randall,  $L.\ O.$ , biological assay of sympathicotonic substances including epinephrine, III,

Hneleski, I. S., experiences with blood transfusions from blood bank, III, 831.

Ho, C. H. See Kuo, P. T.

Ho, E. A., Chu, H. J., and Yuan, I. C., ilium puncture, for obtaining bone marrow in dogs, III, 552.

Ho, Y. C. See Kuo, P. T.

Hoagland, C. L., micro-manometric determination of magnesium, III, 152. Micro-manometric determination of sulphate and phosphate, III, 236.

Lavin, G. I., Smadel, J. E., and Rivers, T. M., constituents of elementary bodies of vaccinia. II. Properties of nucleic acid obtained from vaccine virus, III, 55.

Smadel, J. E., and Rivers, T. M., constituents of elementary bodies of vaccinia. 1. Basic analyses and lipoid components of virus, III, 55.

Ward, S. M., Smadel, J. E., and Rivers-T. M., constituents of elementary bodies of vaccinia. III. Effect of purified enzymes on elementary bodies

of vaccinia, III, 809.

Hoagland, .D. R., and Broyer, T. C., hydrogen-ion effects and accumulation of salt by barley roots as influenced by metabolism, III, 148.

Hoagland, H., recording electrocorticograms in animals without opening skull, III, 856.

See also Hadidian, Z. Hoaglin, R. I. See Bachmann, G. B.

Hoard, J. L., and Martin, W. J., structures of complex fluorides; stereochemistry of fluoniobate and oxyfluoniobate complexes; crystal structure of potassium oxyfluoniobate-potassium hydrogen

fluoride, K<sub>2</sub>NbOF<sub>5</sub>,KHF<sub>2</sub>, 1, 103. and Vincent, W. B., structures of complex fluorides; barium fluosilicate and fluogermanate, I, 196.

Hobbs, J. E., and Bortnick, A. R., endometriosis of lungs, III, 452.

Hobbs, M. E. See Brooks, C. S., Hudson, B. E., Maryott, A. A., and Pohl,

Hobson, F. C. G., and Witts, L. J., venomlecithin reagent for accelerated clotting test (prothrombin time), III, 647.

See also Witts, L. J. Hobson, G. D., properties of clay suspensions, I, 42.

Hobson, R. W., Hartman, R. J., and Kanning, E. W., solubility of di-npropylamine, I, 462.

Hoch-Ligeti, C., effect of prolonged Xirradiation on Congo-red index of rabbits, III, 281.

Hochanadel, C. See Hall, W. H.

Hock, C. W., Ramsay, R. C., and Harris. Milton, microscopic structure of cotton fibre, III, 542.

Hockett, R. C., Sapp, A. C., and Millman, S. R., action of hydrogen peroxide in tert.-butanol on d-glucal and its triacetate in presence of osmium tetroxide, II, 352. Hodapp, A. See Greisheimer, E. M.

Hodes, H. L., Webster, L. T., and Lavin, G. I., use of ultra-violet light in preparing non-virulent anti-rabies vaccine, III, 478. Hodes, P. J. See Lieberman, L. M.

Hodes, R., reciprocal innervation in small intestine, III, 880. Efferent pathway for reflex pupillo-motor activity, III, 985. Hodge, E. S. See Brode, W. R. Hodge, E. T. See Bogne, R.

Hodge, H. C., MacLachlan, P. L., Bloor, W. R., Stoneburg, C. A., Oleson, M. C., and Whitehead, R., lipins of fasting mouse. I. Relationship between carcass- and liver-lipins, III, 688

Van Huysen, G., Bonner, J. F., and Van Voorhis, S. N., adsorption of phosphates at 40° by enamel, dentin, bone, and hydroxyapatite as shown by the radioactive isotope, III, 515.

See also MacLachlan, P. L., Manly, M. L., Riley, R. F., and Steadman, L. T. Hodges, C. V. See Huggins, C.

Hodgson, A. E., scrum and arsenicals in cutaneous anthrax, III, 1054.

Hodgson, H. H., and Nicholson, D. E., nitrous acid as a nitrating and oxidising agent. IV. N-Dialkylanilines, II, 319.

Hodgson, T. H., normal and pathological vitreous humour, III, 865.

Hodson, A. Z., influence of dietary riboflavin on content of this vitamin in chicken tissue, III, 25.

Höber, R., and Briscoe-Woolley, P. M., conditions determining selective renal secretion of dyes, III, 16.

Hoecker, F. E., evolution of X-ray tube, III, 793.

Höfer, H. See Briner, E., and Susz, B. P. Hoeffel, G. See Talbot, N. B. Högberg, B., and Schlenk, F., determin-

ation of pyruvic acid in blood, III, 247. Hoegberg, E. I. See Smith, S. B. Hoehn, H. H. See Smith, L. I.

Hoelzel, F., Da Costa, E., and Carlson, A. J., production of intestinal lesions by feeding karaya gum and other materials to rats, III, 1016.

Hönigschmid, O. See Baxter, G. P. Hoeppli, R., influence of splenectomy on susceptibility of mice to infection with Tania taniaformis eggs, III, 812.

and Tang, C. C., leeches in old Chinese and European medical literature, III, 1021.

Hofer, O., action of sulphoricinoleate on [dental] tartar, III, 919.

Hoff, H. E., and Nahum, L. H., influence of local applications of potassium chloride on action current of mammalian heart, III, 559. Direction of T wave: effect of heat and cold on dextro- and lavo-cardiogram, III, 650.

Winckler, A. W., and Smith, P. R., recovery of fatigued muscle following intravenous injection of potassium chloride, III, 497. Effects of magnesium on nervous system in relation to its concentration in scrum, III. 566.

See also Nahum, L. II., and Winkler, A. W.

Hoff-Jørgenson, E., biological degradation of αβ-dihydroxybutyric acids, III, 1042.

Hoffeld, G. D., backache as symptom of adrenal dysfunction, III, 754.

Hoffman, C., Schweitzer, T. R., and Dalby, G., fungistatic properties of antiseptics and related compounds; effects of  $p_{\rm H}$ , III, 625.

Hoffman, F. G. See Schmidt, I. G. Hoffman, H. L., benzedrine in Parkinsonism, III, 665.

Hoffman, J. G. See Murray, W. S.

Hoffman, J. I., decomposition of rocks and ceramic materials with a small amount of sodium carbonate, I, 63.

Hoffman, M. H., results of treatment with diethylstilbæstrol, III, 872.

Hoffman, M. M., and Schour, I., quantitative studies in development of rat molar. I., III, 3.

See also Heard, R. D. H., and Rappaport,

Hoffman, O. See Erickson, B. N. Hoffman, O. D. See Beach, E. F., and Karr, W. G.

Hoffmann, A. E. See Schoch, E. P.

Hoffmann, C. R. See Murray, M. Hoffmann, H. O. E., and Ghormley, R. K.,

glomus tumour and intramuscular lipoma, ĬII, 336.

Hoffmann, K. See Miescher, K. Hoffmann, O. See Karrer, P.

Hoffmeyer, J., adrenal tumours and their relation to arteriosclerosis, III, 94.

Hofman, L. N., effect of various factors on chloride content of blood, III, 729.

Hofmann, (Miss) C. M. See Cope, A. C. Hofmann, E., congenital thoracic fissure formations, III, 639.

Hofmann, K., and Bergmann, M., kinetics of action of trypsin on synthetic substrates, III, 534.

See also Du Vigneaud, V., and György, P. Hofmann, IV. See Fahrenhorst, E., and Hiller, J. E.

Hofrichter, C. H., jun. See Post, H. W. Hofstadter, R. See Herman, R. C.

Hogan, A. G., Powell, E. L., and Guerrant, R. E., anæmia from lysine deficiency in deaminised caseinogen, III, 324.

Richardson, L. R., Johnson, P. E., and Nisbet, R. N., pigeon anemia as a deficiency disease, III, 24.

Richardson, L. R., Patrick, H., and Kempster, H. L., perosis due to a vitamin deficiency, III, 897. See also Richardson, L. R.

Hogden, C. G. See Robinson, H. W. Hoggarth, E. See Clemo, G. R.

Hogge, E., and Garrett, A. B., thallous chloride-ethyl alcohol-water system at 25°; activity coefficients of thallous chloride in ethyl alcohol-water mixtures, I, 265.

Hogness, T. R. See Altschul, A. M., and Haas, E.

Hogrefe, I., histopathology of senile dementia, III, 995.

Hoh, S., and Hanawa, Y., influence of gas pressure on striking voltage of an alternating-current arc, 1, 22.

Hohenadel, B. See Auler, H.

Holbrook, A. A., blood picture in chickenpox, III, 966.

Holbrook, P. See Hench, P. S.

Holck, H. G. O., and Fink, L. D., influence of sex life on resistance to nostal and pentobarbital, III, 528.

Holden, H. F., ultra-violet absorption spectra of metallo-porphyrins and their compounds with globin, I, 292. Cobalt compounds of protoporphyrin, II, 338.

Holder, C. B. See Henze, H. R.

Holder, C. H., and Maass, O., solubility measurements in region of critical temperature, I, 36.

See also Linton, E. P.

Holder, H. G., and Mackay, E. M., application of carbamide (urea) therapy in wound-healing, III, 132.

Hollaender, A., monochromatic ultraviolet radiation as activating agent for eggs of Arbacia punctulata, III, 954.

and Duggar, B. M., effects of sublethal doses of monochromatic ultra-violet radiation on growth and properties of bacteria, III, 50.

See also Harvey, E. B.

Holland, G., circulatory changes in headdown position, III, 171.

Hollander, A., and Landsberg, E., acute endocarditis due to anaërobic pneumococcus, III, 230.

Hollander, F., and Glickstein, J., secretory studies in whole stomachs: dilution indicator technique and its precision measures, III, 103.

Klempner, E., and Frank, R. T., dosageresponse equation for androgen assay by chick comb method, III, 576.

See also Frank, R. T. Hollander, G. See Cantarow, A.

Hollander, L., dermatitis due to stain on wooden handle of a kitchen knife,

Schmitt, C. L., and Schlesinger, C. R., comparison of serological tests for syphilis, III, 629.

Holler, A. C., detection of cadmium in

presence of copper, I, 280.

Holley, C. E., jun. See Dole, M., and Wall, F. T. Hollingshead, E. A., and Gordon, A. R.,

differential diffusion constant of calcium chloride in aqueous solution, I, 162.

Hollingsworth, E. W. See Eck, J. C.
 Hollinshead, W. H., chemoreceptors in abdomen of adult mice, III, 549.

Hollo, and Kolbenheyer, blood pressure in polycystic kidneys, III, 563.

Holloway, M. G., and Moore, B. L., dis-integration of <sup>14</sup>N and <sup>15</sup>N by deuterons, I, 142.

Holly, C. See Ingleby, H. Holm, M. B., projection Wilson chamber.

Holman, D. V. See Batterman, R. C.

Holman, E. See Dobson, L., and Rytand, D. A.

Holman, H. H. See Wile, U. J.

Holman, R. L., acute necrotising arteritis, acritis, and auriculitis following uranium nitrate injury in dogs with altered plasma-proteins, III, 733.

Holmberg, B., stereochemical studies. XXII. Decomposition of optically active a-phenylethylthiolacetic acids, II, 64.

Holmbergh, O., reactivation of malt amylase inactivated by oxidation, III, 47. Holmboe, H. S., and Holmboe, R. W.,

prothrombin determination in blood, III,

Holmboe, R. W. See Holmboe, H. S.

Holmes, A., age determination of carboniferous basic rocks of Shropshire and Colonsay. II., I, 356.

Holmes, A. D., and Pigott, M. G., effect of thiamin hydrochloride on muscular dystrophy of avitaminosis-E, III, 852. Pigott, M. G., and Terry, A. N., prepar-

ation of permanent records of biological vitamin-D assays, III, 779.

Holmes, A. D., Tripp, F., and Satterfield, G. H., ascorbic acid content of blood plasma of laying hens, III, 120.

Holmes, B. See Feldberg, W. Holmes, B. E., serum-cholesterol and irradiation sickness, III, 468.

Holmes, C. A., Ojers, G., and Dragstedt, C. A., liver-histamine during peptone shock in dogs, III, 1019.

See also Ojers, G.

Holmes, C. W. N., and Loudon, J. D., mobility of groups in benzonitriles, II, 43.

Holmes, D. W. See Bachmann, W. E.

Holmes, F. C., vacuum still for purification of a single substance or recovery of a single fraction, I, 133.

See also Amis, E. S.

Holmes, F. E., volumetric tubes for small volumes, I, 486. Absorption bulb for use with syringe in determining oxygen of air in oxygen tent, III, 735.

Cullen, G. E., and Nelson, IV. E., levels of ascorbic acid in plasma of healthy children, III, 598.

Holmes, G., gastro-intestinal allergy associated with organic disease, III, 811. Holmes, H. F. See Wells, H. G.

Holmes, J. See Milligan, W. O. Holmes, J. M., familial periodic paralysis,

Holmes, J. W., Jones, J. A., Einhorn, N. H., and Wikler, L. A., treatment of gono-coccal vulvovaginitis in children [with

costradiol, III, 1010.

Holmes, R. O. See Reinhardt, W. O.

Holmes, IV. J., and Hamman, G. C.,
blindness in Hawaii, III, 501.

Holmes, W. K. See Young, J. Z.

Hoist, G., dissociation constant of hypochlorous acid, I, 114.

Hoist, J. C., actiology and treatment of

sympathetic ophthalmia, III, 862. Holstein, T., and Primakoff, H., field dependence of intrinsic domain magnetisation of a ferromagnet, I, 75. Magnetisation near saturation in polycrystalline ferromagnets, I, 197.

Holt, E. E. See Beach, S. J.

Holt, H. D., and Wright, H. D., importance of suspending fluid used in virulence tests on C. diphtheriæ, III, 52.

Holt, L. B. See Maclean, I. H.

Holt, L. E., jun. See Najjar, V. A. Holter, H., and Lindahl, P. E., distribution of peptidase in Paracentrotus embryos, III, 587.

Holter, N. J. See Gengerelli, J. A. Holtz, P., and Walter, H., protein-bound form of vitamin-C, III, 375.

Holtzman, I. N., contact dermatitis due to nail lacquer, III, 918.

Holtzman, S. See Daniels, W. B.

Holyoke, E. A. See Grodinsky, M. Holz, A. See Wachholder, K.

Homburger, E. See McChesney, E. W. Homeyer, A. H. See Wallingford, V. H. Honaga, S., changes of blood-calcium, potassium, and phosphorus in fever,

III, 213.

Honda, K., Shirai's pregnancy test, III, 1013.

Honeyman, W. M. See Carmichael, E. A. Honig, C. D. See Krichesky, B. Honig, P., seeing of colours and autonomous

nerve system, III, 1000.

Hood, D. B. See Gurin, S. Hook, W. E., effect of crude peanut oil extracts of brown fat on metabolism of white rat, III, 604. See also Stormont, R. T.

Hooker, C. W., healing of wounds of uterus of mouse, III, 414. Effects of progesterone on uterus of mouse, III, 579. Production of deciduomata in ovariectomised mice receiving progesterone, III, 873.

and Williams, W. L., retardation of mammary involution in mice by lactogenic hormone, III, 266.

Hooper, J. F. See King, G. B. Hoover, S. R. See Lineweaver, H.

Hope, F.J. See Milligan, R.F.

Hopf, H. S., physiological action of high temperatures on poikilothermic animals. I.I. Changes in phosphorus distribution of body fluid of insects under influence of high temperature, III, 123.

Hopkins, C. R., size and location of blindspot of Mariotte as computed from one hundred angioscotometric records, III, 569.

Hopkins, D. L. See Mast, S. O. Hopkins, J. W., effect of phytohormone dust seed treatment on growth and yield of barley under greenhouse conditions, III, 60.

Hopkins, R. H. Stopher, E. G., and Dolby, D. E., fractionation of potato starch by electrophoresis, II, 35.

Hopkins, S., jun. See Hasselstrom, T.
Hopkins, S. J. Sco Wright, G. P.
Hopper, I. V., MaeGregor, J. H., and
Wilson, F. J., preparation of thiolcarboxylic acids and their arylamides, II,

Hopper, S. H., and Clapp, D. B., effect of carcinogenic and other hydrocarbons on growth of Escherichia communior, III,

Horack, H. M. See Ham, G. C. Horanyi, M. See Molnar, S.

Horanyi-Hechst, B., anatomical localisation of catatonic symptoms, III, 986.

Horecker, B. L., Ma, T. S., and Haas, E., determination of micro-quantities of organic phosphorus, II, 80. See also Haas, E.

Horeczy, J. T. See Kelso, E. A., and Shive, B.

Hori, M., aldol and constitution of p-aldol, II, 119. Iodometric determination of sum of aldol and p-aldol in acetaldehyde,

Horii, Z., synthesis of nobiletin (5:6:7:8:3':4'hexamethoxyflavone), II, 331.

Horn, C. L., stimulation of growth in juvenile mangosteen plants, III, 405.

Horn, F., pseudochylous effusions, III, 333. and Schwartzer, K., bactericidal power of blood after quinine, III, 462.

Horn, H. W. See Steadman, L. T. Horn, J. L. See Dorn, H. F.

Horn, M. J., and Jones, D. B., isolation of lanthionine from human hair, chicken feathers, and lactalbumin, III, 586. Isolation from Astragalus pectinatus of a crystalline amino-acid complex containing selenium and sulphur, III, 713.

Jones, D. B., and Ringel, S. J., new sulphur-containing amino-acid (lanthionine) from sodium carbonatetreated wool, II, 188.

Horne, G., fructose-tolerance test in intolerance to antisyphilitic therapy, III,

and Scarborough, H., capillary resistance in antisyphilitic therapy, III, 617. Hornibrook, J. W., nicotinic acid as growth factor for H. pertussis, III, 309.

Horning, E. C. See Fuson, R. C.

Horning, B. See Cook, A. H. Horowitz, N. H., and Heegaard, E., carboxylase of pea roots, III, 387. See also Tyler, A.

Horsfall, F. L., jun. See Lennette, E. H., and Weir, J. M.

Horsfield, E. L. See Shirley, J. Horstmann, F., and Herrnberger, K. influence of follicular hormone on vaginal flora, III, 100.

Horswell, R. G. See Rhoads, P. S.
Horton, J. See Hunscher, H. A.
Horton, J. W. See Woodbridge, P. D.
Horton, N. H. See Xan, J.

Horton, P. B., Murrill, W. A., and Curtis, A. C., determination of vitamin-A in blood and liver as index of vitamin-A nutrition of rat, III, 1034.

Horvath, S. M., creatine content of rat muscle, III, 738. and Knehr, C. A., adaptation of Folin-

Malmros micro-blood-sugar method to photo-electric colorimeter, III, 970. Horvath, W. J., and Salant, E. O., absorp-

tion of resonance neutrons by boron, chlorine, cobalt, and manganese, I, 313. Horwitt, M. K. See Panimon, F.

Horwitz, T., chordal ectopia and its possible relation to chordoma. I. III, 824. Hoselitz, K., mobility of alkali ions in gases. V. Temperature measurements

in the inert gases, I, 141. Hoshika, F. See Nonaka, N.

Hosino, M., thiochrome reaction, III, 892.

Hoskins, W. Seo Webster, B.

Hoskins, W. H. Beach, G. W., Coffman,
J. R., and Koch, F. C., baby cockerel test for androgens, III, 576.
See also Sweet, J. E.
Hoskins, W. M. See Dorman, S. C., and

Wieting, J. O. G. Hosoda, Y. See Naito, H.

Hosokawa, H. See Sikinami, Y. Hosoya, Y., and Zempei, S., formation of visual yellow and of so-called visual white through bleaching of visual purple.

I. Effects of changes in extraction process on spectral absorption of visual purple and visual yellow, III, 259.

Hotchkiss, R. D., and Dubos, R. J., bactericidal fractions from an aerobic sporulating bacillus, III, 228. See also Little, R. B.

Hotchkiss, R. S., male factor in fertile and barren marriage, III, 672. See also Macleod, J.

Hottle, G. A., Lampen, J. O., and Pappenheimer, A. M., jun., biotin as growth factor for C 203 S strain of hæmolytie streptococcus, group A, III, 305.

Hotz, H. W., and Lüthy, F., spinal cord changes in endemic sprue, III, 345.

Hou, H. C., riboflavin deficiency among Chinese. II. Cheilosis and seborrhæio dermatitis, III, 1035.

Hou, Y. C. See King, L. P.

Hough, J. W. See Flinn, R. H. Hough, V. H. See Berman, A. L.

Hough, W. H., Adie's syndrome in twins, III, 664.

Houghten, F. C. See Ferderber, M. B. Houghton, B. C., and Doan, C. A., biotitration of optimum erythrocyte maturation in human anæmie states, III, 551.

Householder, A. S., neural mechanism for discrimination. III. Lengths and distances, III, 181. Biophysics of cellular forms and movements, III, 827. Steadystate activity in nerve-fibre networks.

II. Simple circuit, III, 983.

Houser, K. M., Campbell, E. H., and Schluederberg, H., treatment of chronic deafness and tinnitus aurium with prostigmine, III, 12.

Houssay, B. A., Foglia, V. G., and Fustinoni, O., intestinal absorption of sugars in adrenal and hypophyseal insufficiency of toads, III, 185.

Houtermans, (Miss) C. See Healea, (Miss) M.

Hovanitz, W., parallel ecogenotypical colour variation in butterflies, III, 886.

Hove, E., Elvehjem, C. A., and Hart, E. B., relation of zine to carbonic anhydrase, III, 136.

See also Wachtel, L. W.

Hovorka, F., and Chapman, G. H., antimony electrode, I, 268, 417.

Lankelma, H. P., and Bishop, J. W. thermodynamic properties of the hexyl alcohols. VI.  $\beta\gamma$ -Dimethylbutan- $\beta$ -ol and y-methylpentan-\beta-ol, I, 248. See also Higgins, C. C.

How, J. E., mycorrhizal relations of larch. II. Rôle of larch root in nutrition of Boletus elegans, Schum, III, 818.

Howard, A. D., zoning in spherulites, I,

Howard, A. J. See Clayton, W. Howard, H. W., heteroauxin and growth of meristems of Brassicæ, III, 60.

Howard, J. E. See Emerson, K., jun.

Howard, M. See Brown, Herman.

Howard, N. J., Lochhead, A. G., and
McCrady, M. H., detection of coliform organisms in water, III, 536.

Howard, P. J., congenital absence of ab-dominal muscles and genito-urinary malformation, III, 318. Phlyctenular conjunctivitis[treatment with tuberculin], III, 746.

Howard, R. P. See Thorn, G. W.

Howe, L. S. See Roberts, O. L. Howe, P. E. See Sullivan, M. X. Howe, P. R., Wesson, L. G., Boyle, P. E.,

and Wolbach, S. B., low-calcium rickets in guinea-pig, III, 599. Howell, C. E. See Blunn, C. T.

Howell, K. See Rambar, A. C.
Howell, K. M. See Saphir, IV.
Howitt, B. F., and Herick, W. van, attempted adaptation of virus of poliomyelitis to wild rodents, III, 808.

Howland, J. W. See Taplin, G. V. Howland, R. B. See Glancy, E. A., and

Hyman, C.

Howles, J. K., See Kennedy, C. B.
Hoxworth, P., improvement in blood
transfusion service. I. Selection of test scrums; cause and prevention of hæmolytic reactions; rôle of subgroups  $A_1$  and  $A_2$ , III, 643. and Skinner, C., improvement in blood

transfusion service. II. Establishment and operation of blood transfusion service. III. Results of 3077 transfusions of bank blood: statistical analysis, III, 643.

Hoyle, (Miss) K. E. See Cope, A. C. Hoyne, A. L., and Leviton, L. R., scarlatinoid erythema of unknown ætiology, III, 804.

and Smollar, L., gangrene as complication of scarlet fever [from panarteritis], III, 561.

See also Rhoads, P. S.

Hoyt, A., Chaney, A. L., and Cavell, K., steam sterilisation: effects of air in the autoclave, III, 50. See also Moore, F.J.

Hoyt, C. S., sign of electrode potential, I, 116.

Hoyt, F. C., and Frye, W. E., calculation of force fields from scattering, I,

Hoyt, H. C. Sco Lindsay, G. A.

Hoyt, R. E. See Platon, E. S.

Hoyte, S., deformities in refugees owing to intramuscular hamorrhages in scurvy,

Hrdlicka, A., lower jaw, III, 68, 240. Height and weight in Eskimo children, III, 956.

Hsiang, N. S. See Takano, T.

Hsiung, T. S., molecular extinction coefficients of dissolved iodine in photographic infra-red region, I, 162.

Hsu, C. F., alkaloids of Chinese hanfangchi. III. Hanfangchin C, II, 177.

Hsü, C. W. See Tang, T. H.

Hsu, F. Y., and Yang, L. M., antihemolytic activity of blood plasma of different animals, III, 962.

Hsü, H., and Band, W., liquid He II. I. 370.

Hsu, H. C. See Liu, S. H. Hsueh, C. Y., and Ch'iu, P. T. Y., singledose tuberculin testing, III, 1073.

Hu, C. See Frazier, C. N. Hu, M. H., Sah, P. P. T., and Anderson, H. H., anthelmintic properties of alkylcresols and their chloro derivatives, III, 912.

Hua, K. C. See Yuan, H. C.

Huang, C. H., and Sia, R. H. P., stability of suspension for agglutination of C. diphtheriæ, III, 52. Streptococcal virulence tests, III, 629.

Huang, J. J. See Chang, H. C. Huang, Y. W., Shen, T. H., and Tang, F. F., re-utilisation of used agar-agar as an emergency culture medium, III, 800

Hubard, S. S. See Briggs, T. R.

Hubbard, D. M., determination of bismuth in biological material; photometric dithizone method, III, 236. Determination of mercury in urine, III, 274.

Hubbard, J. P., paroxysmal tachycardia and its treatment in young infants, III,

Hubbard, R. S., and Beck, G. M., comparison of chloride concentrations in whole blood and cerebrospinal fluid, III, 256.

and Heilbrun, N., dissolution and diazotisation of bilirubin in chloroform and other organic solvents, III, 948.

See also Heilbrun, N., and Klendshoj, N. C.

Hubbell, R. B. See Vickery, H. B. Hubbert, M. K., ground-water motion, I,

Huber, C. P., toxæmia of pregnancy, III,

and Davis, M. E., clinical use of gonadotropic hormone from pregnant mare serum, III, 579.

and Shrader, J. C., simplified determination of blood-prothrombin levels in new-born, III, 726.

Huber, D. See Treadwell, W. D. Huber, F., crymotherapy; ro roentgenological observations, III, 531.

Huber, O., precipitin reaction with minute traces of blood, III, 169. Huber, W., uræmia after administration of

sulphapyridine, III, 35. Hubert, G. See Edwards, E. A. Hucker, G. J. See Walter, W. G. Hudson, B. E., and Hobbs, M. E., apparatus for measuring dielectric constant of nonconducting liquids, I, 58.

Hudson, C. S. See Hann, R. M., Jackson,

Ernest L., and Knauf, A. E.

Hudson, H. H., value of combined measurements of circulation time and venous pressure (by direct method) in heart failure, III, 495.

Hudson, N. P., protection of guinea-pigs against Mexican typhus virus by vaccine from infected rat lungs, III, 631.

See also Riddle, J. W.
Hudson, R. V., Smith, R., and Selbie,
F. R., intraperitoneal sulphanilamide in intestinal obstruction, III, 609.

Hudspeth, E. Seo Bennett, W. E.
Huebner, C. F., and Link, K. P., hæmorrhagic sweet clover disease. VI. Synthesis of δ-diketone derived from hæmorrhagic agent through alkaline degradation, II, 202.

See also Stahmann, M. A.

Hüllstrung, H., pathogenesis of exudative eczematoid [blood-sugar changes], III, 331.

Huenemann, R. L. See Bryan, A. H.

Hueper, W. C., polyvinyl alcohol atheromatosis in arteries of dogs, III, 337. Cutaneous neoplastic responses elicited by ultra-violet rays in hairless rats and in their haired litter mates, III, 1024.

and Ichniowski, C. T., pathological lesions in organs of cats, guinea-pigs, and frogs produced by digitalis poison-

ing, III, 1049.

Landsberg, J. W., and Eskridge, L. C., effects of intravenous and intraperitoneal introduction of polyvinyl alcohol solutions on blood, III, 131.

Hüsgen, R., dermographic symptoms in infancy, III, 336. Huff, L. C., artificial helictites and gypsum

flowers, I, 435.

Huff, W. J. See Denues, A. R. T. Hufferd, R. W. See Krantz, H. A. Huffman, C. F. See Hale, E. B. Huffman, H. C. See Hass, H. B.

Huffman, H. M., thermal data. XIV. Heat capacities and entropies of compounds

having the peptide bond, I, 199. and Fox, S. W., thermal data. XIII. Heat capacities and entropies of creatine hydrate, dl-citrulline, dl-ornithine, *l*-proline, and taurine, I, 106.

Huffman, J. IV., effect of testosterone propionate on reproduction in female, ĪII, 760.

Huffman, M. N. See Doisy, E. A., jun. Hufschmitt, G. See Sartory, A.

Hug, E., estimation of sulphanilamide by

Pulfrich-Zeiss photometer, III, 784. Clinical method for approximate determination of sulphanilamide in blood, III, 784. Solubility of sulphapyridine and acetylsulphapyridine, III, 784. Huggins, C., and Clark, P. J., effect on

prostate gland of occlusion of its ducts, III, 353. Prostatic secretion. II. Effect of castration and cestrogen injection on normal and hyperplastic prostate glands of dogs, III, 672.

and Hodges, C. V., prostatic cancer. I. Effect of castration, of æstrogen and of androgen injection on serumphosphatases in metastatic carcinoma of prostate, III, 888.

See also Shih, H. E.

Huggins, M. L., densities and refractive indices of liquid paraffin hydrocarbons, I, 99. Photographic Fourier syntheses, I, 103. Refractive index of silicate glasses as a function of composition, I, 163. Densities and refractive indices of unsaturated hydrocarbons, I, 243. Solutions of long-chain compounds, I, 299. Densities of silicate glasses as a function of composition, I, 408.

Hughes, A. L., and Enns, T., velocities of electrons in hydrocarbon bonds, I, 450.

Hughes, D. J., cloud-chamber photograph of slow mesotron pair, I, 443.

Hughes, E. D., elimination reactions in organic chemistry; tautomerism and climination, II, 309.

and Ingold, C. K., theory of aromatic substituents and rearrangement with special reference to benzidine change, IÌ, 319.

Ingold, C. K., and Whitfield, I. C., Walden inversion in replacement of hydroxyl by halogen, II, 131.

See also Dhar, M. L.

Hughes, E. H., minimum requirement of riboflavin for the growing pig, III, 24. Minimum requirement of thiamin for the growing pig, III, 24.

Hughes, H. B., gravimetric determination of carbonyl groups in ketosteroids, II,

Hughes, J. See Smith, L. H.
Hughes, J. F., septicemia with purpura and adrenal hæmorrhage (Waterhouse-Friderichsen syndrome), III, 94.

Hughes, J. G., Diggs, L. W., and Gillespie, C. E., involvement of nervous system in sickle-cell anæmia, III, 859.

and Simpson, W. L., bronchiectasis following atelectasis in tuberculosis of infancy, III, 736. Hughes, J. S. See Aubel, C. E.

Hughes, N. See Auber, C. M. Hughes, W. See Beevers, C. A. Hughes, W. L. See Cohn, E. J. Hughson, W. See Mao, C. Y.

Hugi, E., and Hirschi, H., metamorphie, ore-bearing, radioactive rocks Feldbach (Binnen valley), I, 92.

Hugill, J. A. C. See Davidson, N. R.

Huguenin, R. See Welti, H.

Huhner, M., epididymitis and varicocele in cases of impotence, III, 871.

Hukada, S., experimental study on hysterosalpingography. I. Period of accumulation of contrast medium in rabbit uterus. II. Period of accumulation and shadow picture of contrast medium in rabbit abdominal cavity, III, 1011.

Hukuti, G. See under Fukuti, G. Hulbert, K. F. See Ross, J. A. Hulburt, H. M., and Hirsehfelder, J. O., potential energy functions for diatomic

molecules, I, 96.

Hull, D. E., vacuum tube oscillator for measuring conductance of electrolytes. I, 58. Calibration of Neher-Harper counter circuit for accurate comparison of β-ory-ray sources, I, 90. Attempted exchange of radiophosphorus between ortho-, pyro-, and meta-phosphoric acids, I, 344.

and Williams, J. H., calcium metaphosphate as a target for bombardment of phosphorus by high-voltage ion beams, I, 2.

Hull, F. E., and Nolan, A. F., acetonæmia in swine, III, 7.

Hull, R. A., See Bleaney, B.

Hultgren, R., and Pakkala, M. H., preparation of high-melting alloys with aid of electron bombardment, I, 432. See also Carapella, L. A.

Humble, J. G., heterotopic bone marrow in renal hilum causing pyonephrosis in adult with chronic mycloid leukæmia. III, 958.

Hume, D. N., and Stone, H. W., apparent solubility product of chromous hydroxide; significance of solubility products of hydroxides of metals which form basic salts, I, 336. Preparation and magnetic properties of complex compounds of bivalent chromium, I, 344.

Hume, G. S., geology of British oilfields. II. Prospective oil areas in Canada, I,

Hume-Rothery, W., and Raynor, G. V apparent sizes of atoms in metallic crystals with special reference to aluminium and indium, and the electronic state of magnesium, I,

See also Andrews, K. W., and Raynor, G. V.

Humfeld, H. See Rogers, R. E. Hummel, F. C. See Hunscher, H. A. Hummel, K. P. See Asdell, S. A.

Humphrey, T., development of olfactory and accessory olfactory formations in human embryos and fœtuses, III, 183. See also Crosby, E. C.

Hunscher, H. A., Hummel, F. C., Macy, I. G., Olson, M. B., Bonner, P., Horton, J., Shepherd, M. L., Souders, H. J., Emerson, L., and Johnston, A. T., effect of varied banana intake on nitrogen and mineral balances of normal children, III, 208.

Hunt, A. H., fat embolism and brain, III,

Hunt, C. H., and Bethke, R. M., riboflavin contents of hays and grasses, III, 26.

Kick, C. H., Burroughs, E. W., Bethke, R. M., Schalk, A. F., and Gerlaugh, P., riboflavin and thiamin in rumen content of cattle, III, 374.

Winter, A. R., and Bethke, R. M., riboslavin requirements of chicken, III, 117.

Hunt, H. Sec Anhorn, V. J., and Fowler, A. R.

Hunt, H. D. See Lebowich, J. Hunt, M. L. See Ark, P. A.

Hunter, A., selective absorption of light in

interstellar space, I, 137. See also Gornall, A. G.

Hunter, A. W., determination of carbon disulphide in blood and urine, III, 63.

Hunter, B. A., high-mol.-wt. fatty acid derivatives. II. Sulphides, sulphoxides, and sulphones. III. Carboxylic acid salts and amides of n-dodecylamine and

n-octadecylamine, II, 278, 283.

Hunter, F. E., entrance of radioactive phosphorus into sphingomyelin of various tissues of cat, III, 783.

See also Riley, R. F.Hunter, F. R., and Banfield, W. G., effect of swelling on respiration of erythrocytes, III, 415.

Hunter, F. T., erythrocyte fragility, III, 6. Hunter, G., refrigerating condenser; application in distillation vacuum assembly, I, 432.

Hunter, H. See Corner, (Miss) M.

Hunter, J. E., jun., oxidation of polyhydric

alcohols by biological and non-biological means. II, 209.

Hunter, J. H. See Kolloff, H. G.

Hunter, L. See Hayes, H. T. Hunter, M. P. See Kraus, E. J.

Hunter, R. F., and Scott, A. D., palm oil carotenoids. I. Lipoid pigments from "Sherbro" palm oil, III, 315.

Hunter, R. S., multi-purpose photo-

electric reflectometer, I, 90.

Hunting, W. F. See Wagoner, S. C. Huntington, E. See Feinstone, W. H.

Huntington, R. W., jun. Sec Angevine, D. M.

Huntress, E. H. See Seikel, (Miss) M. K.

Hunziker, F. See Miescher, K., and Wettstein, A.

Hurd, C. B., and Barclay, R. W., silicic acid gels. X. Time of set of gel mixtures containing high concentration of mineral acids, I, 42.

Jacober, W. J., and Godfrey, D. W., hydrogel of titania. I. Effect of temperature on time of set, I, 259.

and Marotta, A. J., silicic acid gels. XII. Time of set of acidic and basic mixtures containing phosphoric acid, I, 42.

and Sheffer, H. E., silicic acid gels. XI. Effect of concentration of silica on

time of set, I, 259. Hurd, C. D., and Abernethy, J. L., use of

methylallyl chloride in synthesis of compounds with conjugate unsaturation, II, 181. Condensation of methoxyacetaldehyde to 2:4-dimethylaldotetrose; methoxy- and ethoxy-acetaldehyde, II, 281.

and Green, F. O., acylals, II, 347.

See also Calvin, M.

Hurd, F., and Livingston, R., quantum yields of dye-sensitised photo-oxidations, I, 55. See also Livingston, R.

Hurka, V. R. See Frost, A. A. Hurlburt, E. H. See Green, J. B.

Hurley, F. H., quantitative analysis and theory of measurement, I, 57.

Hurschler, H. See Moeschlin, S.

Hurst, C. See Fatherree, T. J. Hurst, H., insect cuticle as an asymmetrical

membrane, III, 468. Hurst, W., recording sensitive differential

manometer, I, 307. Hurteau, E. F., intracranial use of sulphon-

amides; history and rate of absorption, III, 605.

Huschke, B., insulin treatment of neuralgic pains, III, 571.

Husman, A. A., intravenous use of mercurochrome, III, 41.

Hussein, A. A., and Cruess, W. V., oxidising enzymes of vinifera grapes, III, 533.

Hussey, H. H., and Katz, S., comparative value of ether and paraldehyde as agents for measurement of arm to lung circulation time in 50 patients with and 50 patients without heart failure, III, 652.

Huston, R. C., and Agett, A. H., reaction of ethylene oxide with Grignard's reagent, II, 123.

and Jackson, R. I., condensation of diphenylalkylcarbinols with phenol in presence of aluminium chloride, II, **131.** 

Jackson, R. I., and Spero, G. B., reaction of a halogenocarbonyl compounds with Grignard reagents. I., II, 245.

and Ungnade, H. E., esters of diacetone

alcohol, II, 4.

Hutchens, J. O., need of Chilomonas paramecium for iron, III, 139. Effect of age of culture on rate of oxygen consumption and respiratory quotient of Paramecium, III, 798.

Jandorf, B. J., and Hastings, A. B., synthesis of diphosphopyridine nucleotide by Chilomonas paramecium, III, 534.

Hutcheson, W. C., anatomical basis for auricular fibrillation, III, 560.

Hutchings, B. L. See Woolley, D. W. Hutchinson, J. C. D., colorimetric determination of uric acid in fowl's excreta, III, 363.

Hutchison, A. W. See Beale, R. S. Hutchison, C. A., and Johnston, II. L., determination of crystal densities by the temperature-of-flotation method; density and lattice constant of lithium fluoride, I, 196.

See also Johnston, H. L.

Hutchison, H. E., necrosis of anterior

pituitary during pregnancy, III, 97.

Hutton, C. O., optical properties and chemical composition of two micas from Westland, South Island, New Zealand,

Hutton, E. L., Fleming, G. W. T. II., and Fox, F. E., prefrontal leucotomy, III,

Huxley, L. G. II., lateral diffusion of a stream of ions in a gas, I, 23.

Huyck, C. L., effect of agents on stability of ferrous sulphate solutions, I, 340.

Huyskes, J. A. See Tendeloo, H. J. C. Huzita, S. See Sakurai, Y.

Huziwara, T., endotoxins of B. proteus vulgaris, III, 475.

Hwang, M. S., Kuo, P. T., and Shih, W., aspirated sternal bone marrow in pellagra, III, 958.

See also Morris, H. H. Hyde, J. F., and Delong, R. C., condensation products of organo-silane diols,

Hyde, J. L., exchange of sulphate ion with water, I, 278.

See also Ruben, S.

Hyde, M. E. See Powell, L. S. Hyland, H. H. See Richardson, J. C.

Hyman, A.S., Wolffe, J.B., Swalm, W.M., Morrison, L. M., and Digilio, I'., symposium on angina pectoris—treatment, gastrointestinal disorders, and cardio-vascular factors, III, 560.

Hyman, C., and Howland, R. B., intracellular photodynamic action, III,

133.

See also Ponder, F.

Hyman, H. H. See Waring, C. E. Hyman, H. T., medical management of hyperthyroidism, III, 93.

Hyman, M.A. See Wiener, A.S.

Hyndman, O. R., tic douloureux: relation of "trigger zones" to painful seizures; report of case, III, 858.

Hynes, M., leucocyte count in rubella, III,

Hyslop, R. C., field method for determining magnetic susceptibility of rocks, I, 181.

Ichiba, A., and Emoto, S., pyridine series. I. Synthesis of 3-hydroxy-2-methylpyridine-4:5-dicarboxylic acid, II, 303. See also Ugami, S.

Ichikawa, K., effect of cold on pupil, deprived of upper cervical sympathetic ganglion, and on blood-sugar content of dogs, normal and deprived of suprarenal medulla, III, 864.

Ichimura, Y. See Toriyama, Y. Ichioka, T. See Hall, E. M.

Ichniowski, C. T. See Hueper, W. C. Ida, M., and Murakami, M., vitamin-C contents of various plants, III, 942.

Iddles, H. A., and Minckler, H. L., rearrangement of o-tolyl triphenylmethyl ether; direct synthesis of 4-methoxy-3-methyltetraphenylmethane, II, 10.

Igamberdiev, I. See Murtazaev, A. Igarasi, I., and Kodama, S., solution pressure of pure aluminium. II., I, 469. Iglesias, R. See Lipschütz, A. Ignatiuk-Maistrenko, V. A. See Bezzubetz,

M. K.

Igritzkaja, E. B. See Minina, E. G.

Iida, S. Sec Hamamura, Y. Iida, Y., spleen and thyroid gland in treatment of anæmia due to venesection by injection of copper, III, 164.

Iijima, S., adsorption of ethylene on reduced nickel, I, 37. Adsorption of hydrogen on reduced nickel, I, 205.

limori, S., action of barium salts on circulation, III, 529.

Iimori, T. See Nishina, Y.

See Nishina, Y., and Sagane, R. Ikawa, M.

Ikeda, M. See Nakajima, K.

Ikeda, T., and Ashizawa, C., synthesis of 3-ethylpyridine, II, 332.

Ikuma, S. See Ochiai, E. Ikuta, S. See Matsuda, R. Ilg, V. See Nugent, O. B.

Ilian, B. See Kapp, H.

Ilina, L. I., and Soloviev, L. T., removal of ash from peptones and their partial fractionation by means of electrodialysis, III, 941.

Iljin, G. See Schmuk, A.

Iljin, N. A., wolf-dog genetics, III, 721.
Iljinski, M. A., and Kazakova, V. A., dynamics of oxidation of alkyl-substituted organic compounds by chromic acid. I. Oxidation of 2-methylanthraquinone and its 1-nitro- and 1-chloroderivatives to anthraquinone-2-carboxylic acids, II, 369.

Ilkevitsch, G. P., theory of diffusion in solids. I. Dependence of coefficient of diffusion in solids on concentration, I, 371.

Illing, J., mongoloid idiocy, III, 345. Imanishi, A. See Konishi, K.

Imati, Y. See Kawakami, H.

Imerman, H. M. See Bach, A. C. Immelman, M. N. S., control of temperature and humidity of air in small [insect rearing] cabinets, III, 406.

Impastato, D. J., and Almansi, R., electrically induced convulsions in treatment of functional mental disease, III, 860.

Imre, H., dictyoma in early stage, III, 667. Imschenetzki, A. A., stable and labile R-forms of Sarcinæ, III, 472.

Imus, H. A. See Ogle, K. N.

Inaba, E., effect of cooling on creatine content of muscle of doubly adrenalectomised rabbits, III, 849.

Inagaki, T. See Sakurai, Y.

Inda, C., glucose metabolism and cholesterolæmia, III, 690. Effect of cholestervl esters, calcium, and liver extracts on coagulation index, III, 731.

See also Sagastume, C. A. Ingalls, E. N. See Wyman, J., jun. Inge, F. D., growth correlations in maize seedlings, III, 712.

Ingersoll, W., hæmoglobin values in normal adults over period of time, III, 832.

Ingerson, E., and Morey, G. W., nature of ore-forming fluid, I, 61.

Ingham, A. I., zinc and lead deposits of Shawangunk Mountain, New York, I, 61. Ingle, D. J., and Kendall, E. C., influence

of amorphous fraction from adrenal cortex on efficiency of muscle [and kidney], III, 264. See also Harris, R. E.

Ingleby, H., and Holly, C., preparation of serial sections of whole breast, III, 70.

Inglefinger, F. J., and Abbott, W. O. intubation studies of human small intestine; diagnostic significance of motor disturbances, III, 511.

Inglesent, H., enzymic function of pharyngeal, thoracic, and post-cerebral glands of Apis mellifica, III, 134.

Inglis, D. T. See Becker, H. C.

Ingold, C. K. See Dhar, M. L., and Hughes, E. D.

Ingraham, E. S., jun. See Kahn, J. R.

Ingraham, N. R., jun. See Stokes, J. II.
Ingram, W. R. See Winter, Q. A.
Iniguez, J. M. A. y, spontaneous decomposition of sodium hypochlorite, I, 55.

Inlow, II. II., shellac bezoars [in stomach], III. 103.

Inman, O. R., embryology of hereditary brachydactyly in rabbit, III, 639.

Innes, J., and Davidson, L. S. P., determination of prothrombin in capillary blood, III, 647.

Innes, W. B., and Rowley, H. H., relationships between adsorption isotherm and spreading force, I, 109.

Inoshita, K. See Titani, T.
Inoue, R., methacrylic resins. I. Polymerisation of methyl methacrylate, II,

Inoue, S., and Sawai, I., specific gravity of the ternary CaO-Na<sub>2</sub>O-SiO<sub>2</sub> glasses. XVIII. Specific gravity [and viscosity] of the glasses at 1000—1350° by the Stokes method, I, 107.

Inoue, T., morphine-destroying ability of liver tissues of various animals, III, 42. and Takematsu, M., efficacy of pseudoglobulin in Avisepticus immune serum, III, 140.

See also Sakaguchi, K.

Inouye, K., Sunderlin, R., and Kirk, P. L., microscopy of amino-acids and their compounds; silver salts, II, 354.

Inouye, Y., and Yukawa, H., separation and identification of fatty acids. III. Preparation of pure oleic and elaidic acid by the hydroxamic acid method, 11, 312.

Inukai, F. See Nakahara, IV. Inuzuka, H., device for measuring extinction angle [of crystals], I, 348. Crystal structure of silicon monoxide, I, 452. Cristobalite, I, 489.

Ioanid, V. See Nitzescu, I. I. Iob, L. V. See Sehlutz, F. W.

Iob, V. See Kato, K. Iofa. See under Jofa.

Ionas, D. See Ernandez, G.

Ipatieff, V. N., and Burwell, R. L., jun., catalytic preparation and interconversion of simple and mixed esters, II, 181.

and Corson, B. B., mixed copper hydrogenation catalysts, I, 215. Activation and poisoning of copper hydrogenation catalysts, I, 215.

See also Pines, II.

Ipatov, A. V., isopropyl and isobutyl acrylates, II, 28.
Irany, E. P., macropolymerisation;

mechanism of activation, I, 50.

Ireland, J. T., colorimetric determination of total cholesterol in whole blood, serum, plasma, and other biological material, III, 484. See also Harris, I.

Ireland, L. M. See Smith, C. Ireland, R. M. See Moore, F. J.

Irie, T., bactericidal action of heterocyclic

compounds, III, 625. Irish, D. D., Adams, E. M., Spencer, H. C., and Rowe, V. K., response attending exposure of laboratory animals to vapours of methyl bromide, III, 131.

Irish, E. M. See Stearn, A. E. Iriyama, K. See Tsurumi, M. Irons, E. J. See Ferguson, A. See Ferguson, A.

Irons, J. V. See Bohls, S. W.

Irreverre, F., and Sullivan, M. X., a-guanidino-y-methylthiolbutyric acid (guanidinomethione), II, 281.

Irvin, J. L., Kopala, J., and Johnston, C. G., absorption of carotene from isolated intestinal loops, III, 879. See also Hartzell, J.  $\hat{B}$ .

Irvine, I. H., vasoconstrictor action of plasma from hypertensive patients and dogs, III, 423.

Irvine, R., exfoliation of lens capsule (glaucoma capsulare); report of two cases bearing on actiology, nature, and significance of the condition, III, 865.

Irvine, V. C. Sco Tamele, M. W. Irving, F. C., laboratory findings in hypertension and albuminuria of pregnancy, III, 845.

Irving, G. W., jun., Dyer, H. M., and Du Vigneaud, V., purification, by electro-phoresis, of pressor principle of posterior lobe of pituitary gland, III, 439.

Fruton, J. S., and Bergmann, M., proteinase action; application to specificity problems, III, 534. Activation of intracellular proteinases, III, 705.

See also Cohn, M., and Fruton, J. S. Irving, H., and Cherry, G. W., Bunsen's

salt, I, 115.

and Marston, H., alleged reduction of phenylurethane of trichlorolactic ester and nitrile by dilute aqueous alkali, II, 38.

Irving, J. T., magnesium and tooth structure in rat, III, 208. Influence of vitamin-D on incisor teeth of rachitic rats, III, 951.

See also Gaunt, W. E.

Irving, L., Seholander, P. F., and Grinnell, S. W., respiration of porpoise, Tursiops truncatus, III, 563.

See also Scholander, P. F.

Irwin, C. F., and Hennion, G. F., halogen-ation in reactive solvents. VII. Chlorination of olefines in reactive solvents with tert .- butyl hypochlorite, II, 158.

See also Hennion, G. F Irwin, M. See Balfe, M. P.
Irwin, W. B. See Smith, L. I.

Isaacs, B. L., Jung, F. J., and Ivy, A. C.,

vitamin-A deficiency, III, 91. Isaacs, R., production of pernicious anæmia-

like syndrome in rats with bile acids, III, 323. Hæmoglobin-red cell ratio, III, 962. Isaeson, S. E., and Swenson, S. A., jun., curare in treatment of tetanus, III, 919.

Isaka, H., constitution of tetrahydroxynorsterocholanic acid, II, 364.

Isakov, E. N. See Smirnov, V. A.

Isakova, A. A., control of synthesis of vitamin-C and -B<sub>1</sub> in seedlings by bacterial treatment, III, 404.

Isbell, H., Wooley, J. G., Butler, R. E., and Sebrell, W. H., bacterial assay method for nicotinamide and related substances in blood, urine, and spinal

fluid, III, 715.

Wooley, J. G., and Fraser, H. F., inhibiting effect of urea on microbiological assay of riboflavin, III, 519.

See also Sebrell, W. H. Isbell, H. S., preparation of d-mannose, II, 186. Hydrolysis of turanose in alkaline

solution, II, 186

See also Pigman, W. W.
Isbister, J. See Maddox, K.
Ischkin, I. P., and Burbo, P. Z., dynamics of adsorption of acetylene by silica gel from oxygen-nitrogen mixtures, I, 108. Iseli, O. See Schürch, O.

Isemura, T., oiliness of liquids. X. Friction coefficients of uni- and multi-molecular layers, I, 333:

Ishaq, M.,  $\lambda 3105$  band of OD, I, 319.

Ishihara, T., depressor substance in persimonen tannin, III, 128.

Ishii, M., tannin of Acacia confusa, Merrill. II. III, 1085.

Ishikawa, F., and Abc, J., thermal conductivity of binary systems: airsulphur dioxide, air-diothyl ether, and air-benzene, I, 370.

and Yoshimura, K., velocity of reduction of silver chloride by hydrogen and deuterium, I, 272.

Ishimaru, K. See Naito, H.

Ishizaka, K., anæmia due to diaphragmatic hernia, III, 829.

Ishler, N. H. See Fuchs, W. Isi. See under Ishi.

Ismail, A. F. A. See Schönberg, A.

Ismailski, V. A., and Kozin, A. N., separated auxo-enoid systems. XIV. Preparation of 8-nitro-I-chloromethylnaphthalene and colour of corresponding arylamino-derivatives, II, 219.

Isolabella, M. E., arterial reactions of small laboratory animals due to various drugs, III, 733.

Israel, S. L., scope of artificial impregnation in barren marriage, III, 1012. See also Mazer, C.

Israëls, M. C. G., hæmoglobinisation of erythroblasts, III, 551. Morbid red cell development and treatment of anæmia, III, 959.

Israelson, M. M., autonomic nervous system and infection, III, 861.

Itô, Hidasi, anodic behaviour of tin, IV., I, 470. Anodic behaviour of Cu<sub>6</sub>Sn<sub>5</sub>, 1, 470. Ito, Hisao, menstruation and blood groups, 111, 959. Symptoms of ovulation. III., III, 1011. Group specificity of amniotic fluid in early months of pregnancy, III,

Ito, M. See Titani, T., and Uyei, N.
Ito, N., blood-iodine in thyroid diseases,
III, 436.

Ito, Ryoichi, action of insulin irradiated by ultra-violet and X-rays on blood-sugar,

Ito, S., inhibitory effect of methylene-blue in experimental hepatoma production. II., III, 1025.

Ito, Shu, blood-sugar and sweat secretion, III, 467.

Ito, T. See Tennent, D. H.

Ito, Tei-ichi, and Sawada, H., crystal structure of tellurite, TeO<sub>2</sub>, I, 351. Ito, Y. See Ochiai, E.

Itoh, Ryoji, sex of foctus, III, 13. Itschner, K. I. See Richardson, L. R. Ittyerah, P. I., and Pandya, K. C., condensation of malonanilic acid with aldehydes. II. With o-, m-, and p-hydroxy-benzaldehyde. III. With o-, m-, and p-nitrobenzaldebyde, II, 170.

Ivanenko, D., scattering of mesons, I,

and Sokolov, A., dipole character of the meson, and difficulties of meson theory, theory, I, 443. Classical dynamics, I, 443.

Ivanov, A. V. See Sinelnikov, K. D.

Ivanov, I. I., adequacy of acceptor respiration, III, 897.

Ivanov, S. M., frost-resistance of citrous plants and period of daylight, III, 398.

Ivanov-Emin, B. N., complex germanium compounds, I, 87. See also Alimarin, I. P.

Ivanova, E. V., and Schalberov, N. A., effect of sorption of water vapour on conductivity of silica glass, I, 49. Ivantscheva, E. G. See Pamfilov, A. V.

Iveković, H., Dančević, L., and Herrmann, M., Matijino spring at Ponijevo near
 Zepče, Bosnia, I, 225.
 Ivett, R. W., Seo De Vries, T.

Ivy, A. C., effects of gastrectomy in animals, 111, 511.

J. S., Greengard, H., Harrison, S. P., Isaacs, B. L., Lowe, E. R., Noble, T. A., Osborne, S. L., Phibbs, B. P.,

Vance, R. W., and Werch, S. C.

Ivy, H. B. See Crandall, L. A., jun.

Iwadare, K., formation of polyhydroxydialdehydes. I. Xylotrihydroxyglutardialdehyde and its derivatives. II. d-Lyxotrihydroxyglutaric dialdehyde and its derivatives, II, 160, 281. Lignin. III. Lignin of Pawlonia imperialis, II,

Iwamoto, H. See Daniels, T. C.

Iwasaki, M., pentose-fermenting lactic acid bacteria, III, 140. Iwasaki, Y., and Komatsu, T., ascorbic

acid content of citrous fruits, III, 893.

Iwata, J. See Tsurumi, M.
Iwata, K. See Iwata, M.
Iwata, M., Susuki, S., and Iwata, K., promoting growth and function of genital glands of young rats, III, 509.

Iwersen, J. C. See Minckler, J. Iyengar, N. K., and Scott, D. A., destruc-

tion of insulin in blood, III, 186.

Iyer, B. H., condensation of C-acetylmethone with aromatic aldehydes, II,

and Guha, P. C., attempts towards synthesis of cantharidin. III. Con-densation of ethyl 3:4-diketotetrahydrofuran-2:5-dicarboxylate with abromo-esters, II, 302.

Iyer, K. S. S., photo-electric efficiency of iron, cobalt, and nickel at different temperatures in the soft X-ray region, I, 139.

See also Rao, S. R.

Izmailski, V. A., reactivity of naphthalene ring in relation to dispersal of electromeric effects; methyl and chloromethyl groups, II, 126.

and Simonov, A. M., synthesis of substances of probable antimalarial action. I. Structure and pharmacological properties. II. Benziminazole compounds with a y-diethylaminopropyl group, II, 336.

Jäämeri, E., infections of urinary tract in pregnancy and parturition, III,

Jaap, R. G., body form in growing chickens, III, 885.

Jack, G. W., and Stegeman, G., heat capacities and entropies of two monosaccharides, I, 457.

Jackman, R. J. See Bargen, J. A.

Jackson, A. V. See Burnet, F. M.

Jackson, D. E., autonomic nervous system in relation to experimental and clinical phenomena, III, 180.

Jackson, Ernest L., and Hudson, C. S., crystalline β-methyl-D-ribopyranoside, II, 241.

Jackson, Eugene L., acute fatal insulin poisoning, III, 868.

Jackson, H. W. See Neal, J. B.

Jackson, J., electrocapillary measurements, I, 38.

Jackson, R. F., and McDonald, E. J., errors of Munson and Walker's reducingsugar tables and precision of their method, II, 387.

Jackson, R. I. See Huston, R. C. Jackson, S. H. See Ross, J. R.

Jackson, V. See Ross, A. T.

Jackson, V. T., improved Cottrell b.p.

apparatus, I, 129.

Jackson, IV., measurements of highfrequency permeability, I, 8. and Chester, A. E., extraction of electrons from cold metals at high field-strengths. I, 185.

Jacob, F. M. See Guy, W. H.Jacober, W. J. See Hurd, C. B.

Jacobi, H. G., jaundice, III, 649. Jacobi, H. P., Baumann, C. A., and Meek, W. J., choline content of rats on various choline-free diets, III, 516.

Jacobi, M., Zuckerman, C., Kogut, B., and Klein, B. ninfluence of metabolisable and non-metabolisable sugars on liver bile secretion, III, 107.

Jacobs, C. A. See Greene, J. A. Jacobs, F. M. See Kröger, F. A.

Jacobs, H. M. See Blatt, M. L.

Jacobs, J. L., and Colmes, A., cutaneous hypersensitivity to iodine, III, 222.

Jacobs, L., and Orris, H., intracutaneous vaccination against smallpox by chick embryo culture virus, III, 478.

Jacobs, M. See Soffer, L. J.

Jacobs, S. See Chamberlain, C. T. Jacobs, W. A., and Craig, L. C., delphinine. III. Action of hydrochloric, nitric, and nitrous acids on delphinine and derivatives, II, 55. Aconite alkaloids. III. Oxidation of aconitine and derivatives with nitric acid and chromic acid, II, 55.

See also Craig, L. C. Jacobsen, C. F. See Hevesy, G., and Linderstrøm-Lang, K.

Jacobsen, I. C., and Lassen, N. O., deuteroninduced fission in uranium and thorium, I, 144. Fission cross-section in uranium and thorium for deuteron impact, I, 360.

Jacobsen, R. P., and Nawrocki, C. Z., photodehydrogenation of sterols. I. △2:4-Cholestadiene, II, 11.

Jacobsen, V. C., kevulosuria [fructosuria], III, 16.

Jacobsohn, D., and Westman, A., parapharyngeal method of hypophysectomy in rabbits, III, 351.

Jacobson, A. S., accessory panereas in wall of gall bladder, III, 200.

Jacobson, E., integrating voltmeter for study of nerve and muscle potentials, III, 315.

Jacoby, P., and Spotoft, J., significance of sedimentation reaction in prognosis of cancer patients [after treatment], III, 831.

Jacox, R. F. See Taplin, G. V. Jadassohn, W., Fierz-David, H. E., and Ruffoni, G., action of female sex hormones on nipple of guinea-pig, III,

Jäckli, W., infantile poikilodermia combined with alopecia, microdontia, and complicated cataract, III, 485.

Jaeger, J. C., production of electron pairs, I, 394.

Jaeger, W. See Dimtza, A. Jaffé, G., local field in polarised dielectrics, I, 244. Joint action of diffusion and recombination of ions, I,

Jaffe, H. L., hyperparathyroidism, III,

Lichtenstein, L., and Sutro, C. J., pigmented villonodular synovitis, bursitis, and tenosynovitis, III, 949.

See also Ginzler, A. M., Lichtenstein, L., and Master, A. M.

Jagić, N. von, and Fleischhacker, II., treatment of anæmias, III, 325. Jahn, F. See Varady, J.

Jahn, H. A., diffuse reflexion of X-rays, I, 195.

and Lonsdale, K., diffuse reflexions from diamond, I, 102.

Jailer, J. IV., effect of testosterone propionate on creatinuria of experimental hyperthyroidism in male and female monkeys, III, 753. Effect of castration and androgen therapy on creatine and creatinine excretion in monkeys,

and Leathem, J. H., auto-gonadotropic substances in man following treatment with pregnant mare serum, III, 575.

Jain, A. C. See Gupta, H. L.

Jain, K. D., and Jha, J. B., adsorption of mono- and poly-basic acids by sugar charcoal, I, 255.

Jaitschnikov, I. J., and Tarasikov, N. A., proteins of Tilia grandifolia, Ehrh., seeds, III, 715.

Jakobowicz, R., and Bryce, L. M., iso-agglutinin titre of pooled serum or plasma, III, 727

Jakovleva, A., and Kondrateev, V., production of sulphur monoxide photochemical processes, I, 382. See also Kondrateev, V.

Jakschin, M. M., rate of hydration of isomeric platino-complexes, I, 171. Jakubova, F. See Manulkin, Z. Jakubovitsch, A. J. See Braz, G. I.

Jakubson, S. I., thermochemistry of complex compounds of aluminium. II. Heats of solution of complexes of aluminium bromide and potassium chloride in benzene and toluene. III. Heat of formation of the complexes of aluminium bromide and ammonium

halides, I, 212.

James, A. P. R., sensitivity of skin to fluorescent light, III, 1060.

James, F. L., drying apparatus for flasks, I, 60.

James, G. M. Sce James, W. O.

James, G. V. See Harris, I.

James, N. R. See Boston, F. K.

James, T. H., photographic development. III., I, 121. Reduction of silver ions by quinol and p-phenylenediamine in alkaline solution, I, 214.

James, W. O., James, G. M., and Bunting, A. H., formation of pyruvic acid by

barley, III, 635.

Jamison, H. W., anatomical analysis of normal reentgenographic shadows at pulmonary apices, III, 656.

Jamison, M. M., and Turner, E. E.,

mutarotation of ethyl-alcoholic solutions of l-menthyl benzoylformate, II, 370.

Janeu, A., Oprisiu, C., and Domincovici. N., gonorrheal polyarthritis after blood transfusion, III, 416.

Jandorf, B.J., isolation of diphosphopyridine nucleotide, III, 534.

Klemperer, F. W., and Hastings, A. B., manometric determination of diphosphopyridine nucleotide, III, 534. See also Hutchens, J. O.

Janeway, C. A., and Dammin, G. J., infectious mononucleosis; relationship of organisms of genus Listerella to the disease, as studied by agglutination reaction, III, 929.

See also Cheever, F. S.

Jang, C. S., ions and adrenergic transmission in rabbit's ear, III, 179. Interaction of sympathomimetic substances on adrenergic transmission, III, 216. Potentiation and paralysis of adrenergic effects by crgotoxine and other substances, III, 294. Action of berberine on mammalian hearts, III, 463.

Janik, N. M., cicatrisation of superficial corneal lesions in Gallus banciva domesticus, Mus musculus, L., and Oryctolagus cunniculus, L., III, 863.

Janischeva, Z. S. See Balandin, A. A. Janke, A., oxygen consumption and redox potential of acetic acid bacteria, III,

Jankelevitsch, M. E., and Ledanov, S. N., use of antireticular cytotoxic serum in treatment of chronic tonsillitis, III, 832.

Jankelson, I. R., Segal, M. S., and Aisner, M., tyrosinæmia and Takata-Ara tests in cirrhosis of liver, III, 584.

See also Swartz, J.H.Jankovich, L., closing mechanism of umbilical vessels in newborn, III, 82.

Janney, J. H. See Gordon, J. E.

Jánossy, L., penetrating cosmic-ray showers,

and Lockett, P., sun's magnetic field and diurnal and seasonal variations in cosmic-ray intensity, I, 361.

See also Rossi, B., Janota, M. See Cohn, D. J.

Jansen, E. F., and Balls, A. K., chymopapain: crystalline proteinase from papaya latex, III, 303.

Jansen, J., and Brodal, A., intrinsic fibres of cerebellum. II. Cortico-nuclear projection, III, 430.

and Waaler, E., histological findings in fatal cases of insulin and cardiazol shock treatment, III, 990.

See also Nicolaysen, R.

January, L. E., and Fowler, W. M., aplastic anemia, III, 960.

See also Greene, J. A.

Janzen, R., electro-encephalographie studies of sleep and idiopathic narcolepsy, III,

and Behnsen, G., pathophysiology of paroxysmal attacks, especially of cataplectic attack in narcolepsy, III, 991.

and Kornmüller, A. E., electro-ence-phalographic studies of conditions of diminished consciousness, III, 989. Regional differences in cortical actionpotentials (scalp-lead) in diseases of brain in man, III, 989. Normal electro-encephalogram in man, III,

Jaques, L. B., and Charles, A. F., assay of heparin, III, 492.

and Waters, E. T., anticoagulant of anaphylactic shock (dog), III, 726. Jaquet,  $\hat{A}$ . See Goldstein,  $\hat{H}$ 

 Jarman, J. See Friedman, B.
 Jaroslav, S. J., Glagolev, V. P., and
 Kreimer, B. J., lymph pressure in thoracic duct and cisterna chyli. V. III, 169.

Glagolev, V. P., Semenenko, B. M., and Kreimer, B. J., influence of autonomic drugs on lymph production, III, 170.

Jasper, H. H. See Usher, S. J.

Jasperson, H. See Hilditch, T. P.

Jatlov, V. S., and Pinaevskaja, E. N., vapour pressure of solutions of fluoro-silicic acid, I, 415.

Jatzimirski, K. See Tzukervanik, I. Jaulmes, C. See Binet, L. Jauncey, G. E. M., extra spots in Laue photographs, I, 102. Modified reflexion of X-rays by crystals, I, 245.

and Baltzer, O. J., modified reflexions of Cu Ka X-rays from rock-salt, I, 76. Non-Laue maxima in diffraction of X-rays from rock-salt; equatorial maxima, I, 325.

Baltzer, O. J., and Miller, D. C., non-Laue diffraction maxima from rock-salt; non-equatorial maxima, I, 325.

Jaure, G. G., influence of temperature on excitability of brain in frogs, III, 499. Influence of brain temperature on peripheral reflexes, III, 499.

Javillier, M., and Gondchaux, S., [determination of] magnesium in chlorophyll, III,

Jay, A. H., photometer for examination of X-ray films, I, 347. Jay, P. See Dean, H. T.

Jayaraman, N., discovery of celestite in

Trichy district, I, 488. Jeaffreson, B. L. See Carmichael, R.

Jeanneney, Castanet, and Cator, measuring bactericidal power of blood, III, 390.

Jeanneney, G. See Dubreuil, G. Jeanneret, H., and Fischer, R., life duration of neutrophil and eosinophil leucocytes in human body, III, 966.

Jeans, P. C., Blanchard, E. L., and Satter-thwaite, F. E., studies with biophotometer, dark adaptation and vitamin-A, III, 668.

Sec also Stearns, G.

Jeckeln, E., pathology of non-tropical spruc, III, 1017.

Jeffers, K. R., cytology of mammary gland of bat, Myotis grisescens, III, 68.

Jeffers, W. A., Montgomery, H., and Burton, A. C., types of orthostatic hypotension and their treatment, III, 978.

Jefferson, J. M., study of sub-cortical connexions of optic tract system of ferret, with special reference to gonadal activation by retinal stimulation, III, 260.

Jefferson, M. E., and Hendricks, S. B., motor-driven ionisation spectrometer, I, 349.

Jefferson, N. C. See West, H. D.

Jeffrey, F. W., cystic fibrosis of pancreas, III, 1015.

Jeffrey, J. S., treatment of war wounds in France, May—June, 1940, III, 33. Jeffries, B. E. See Leighty, J. A.

Jeger, O. See Ruzicka, L.

Jehu, O.J. See Buehan, A.E. Jelinek, C. See Adams, R.

Jelke, H., acute lymphatic lcukæmia in mono ovular twins, III, 72.

Jellen, J. Sec Goin, L. S. Jelley, E. E., application of the grating micro-spectrograph to problem of identi-

fying organic compounds, I, 282.

Jelling, M. See Kokatnur, V. R.

Jenkin, B. M., Mortimer, C. H., and
Pennington, W., lake deposits, I, 225.

Jenkins, F. A., and Mrozowski, S., Zeeman effect of forbidden lines of Pb 1. Pure quadrupole and magnetic dipole lines. II. Interference effect in mixed line X7330, 1, 309, 438.

Jenkins, G. L. See Netz, C. V.

Jenkins, H. G. See Francis, V. J.

Jenkins, H. O., dissociation constants,

activation energies, and resonance, I,

See also Dippy, J. F. J.

Jenkins, R. O. See Benjamin, M. Jennen, R. G. See Wieland, H.

Jenner, E. L. See Blicke, F. F.

Jenney, F. S., reticulum cell sarcoma of rat transferred through twelve successive passages in animals of related stock, III, 1027.

Jennings, H. S., beginnings of social behaviour in unicellular organisms, III, 707. Jennings, K. G. See Fries, J. H.

Jennings, M. A., and Florey, H. W., influence of vagus on secretion of mucus by stomach, III, 444.

See also Abraham, E. P., Chain, E., and Wright, R. D.

Jennings, R. K. See Weil, L.

Jenrette, W. V. See Greenstein, J. P. Jensen, A. S., and Unangst, M. R., conductivity of calcium salts, I, 170.

Jensen, H. See Grattan, J. F.

Jensen, H. L., and Swaby, R. J., association between nitrogen-fixing and cellulosedecomposing micro-organisms, III, 390.

Jensen,  $\hat{H}$ . O., reductase test of cows' milk: mechanism of reduction, III, 140.

Jensen, J. L. See Code, C. F. Jensen, L. B. See Urbain, W. M.

Jensen, O. G., Hanford, Z. M., and Supplee, G. C., equilibrium solutions of lactosesalt mixtures, 1, 9.

Jensen, R. A., and Stoesser, A. I., emotional factor in bronchial asthma in children, III. 847.

Jequier, M., and Roten, J. L., tryptophan in cerebrospinal fluid of patients with tuberculous meningitis, III, 566.

Jermolenko, N. F., determination of diffusion coefficient of electrolytes into gels from electrical conductivity measurements, I, 45.

and Avina, Z. M., adsorption of pierie acid by silica gel from mixed organic

media, I, 255.

and Bochvala, M., adsorption of mixed acids from their solutions in single and

mixed solvents. II., 1, 332. and Ginsburg, D., importance of constitutional properties of organic acids for their adsorption from mixed solvents, I, 10.

Laguto, F. M., Tiumantzeva, M. N., and Romanovitsch, S., periodic formation of deposits from solutions during their evaporation. III., I, 375.

and Plenina, G. N., laminar coagulation of colloidal ferric hydroxide, I, 14.

and Rabinovitsch, L. J., importance of polarity of medium for adsorption of substances by composite briquetted

adsorbents, I, 10.

Jerofeev, B. V., Runtzo, A. P., and Volkova, A. A., kinetics of catalytic reduction of carbon monoxide by hydrogen to hydrocarbons on a cobalt-thorium

catalyst, I, 477.

Jervis, G. A. Sec Ferraro, A.
Jesse, W. P. See Schein, M.
Jessico, C. M. See Marcovich, A. W.
Jette, E. R. See Foote, F.

Jetter, W. J., Moore, M., and Forrester, G. C., determination of breath-alcohol, III, 715. Jewell, M. L. See Rammelkamp, C. H. Jewesbury, E. C. O., reactions after trans-

fusion of stored blood, III, 642.

Jezler, A., clinical value of determination

of residual nitrogen in deproteinised blood, III, 332.

Jha, J. B. See Jain, K. D. Jitkov, O. N., and Bogert, M. T., relation between structure and odour of derivatives of 2:2:4-trimethyl-43-tetrahydrobenzaldehyde, II, 292.

Joachim, H. See Rabiner, A. M. Jobling, J. W. See Shemin, D. Jobling, W. H. See Johnson, J. R.

Jochins, J., interferometrie studies in

endocrine disturbances, III, 348. Joel, C. A., histology and histochemistry of

human Fallopian tubes during menstruation and pregnancy, III, 191.

Jofa, S. A., use of dropping mercury electrode for measuring overvoltage, I, 418. Joffe, J. S., and Kritschevtzov, B. K., reaction of diazo-compounds with indophenols, II, 303.

Joglekar, S. Y. See Ramdas, L. A. Johannessohn, F. See Hagedorn, A.

Johlin, J. M., action of methylene-blue on eyanide poisoning in turtle, III, 531.

John, H. J., use of protamine zinc and crystalline insulin in treatment of diabetes, Ill, 756. Non-diabetic glyco-

suria, III, 770. John, R., operating board for small animals,

111, 315. John, W. J., temperature variation of magnetic anisotropy of a bismuth

crystal, I, 156.

Johns, H. E. See Bulger, H. A.
Johnson, A. S., and Oliver, E. B., effect of ingested iron on tests for occult blood in

stools, III, 362.

Johnson, B. C. See Anderson, H. D.

Johnson, B. K., reflecting-power measurements in spectral region 2000-1300 A.,

I, 185.

Johnson, C.A. See Wakerlin, G.E.Johnson, C. B., sulphapyridine in lobar

pneumonia complicated by diabetes, III, Johnson, C. R., calibration of volumetric

apparatus, I, 179.

and Miller, Harvey, centrifuge accessories, I. 180.

and Nnnn, L. G., jun., catalytic oxidation of phosphorus tribromide, I, 119. Silver phosphate in quantitative analysis, I, 126.

Johnson, E. D. See Plant, M. M. T. Johnson, E. P., wheat-germ oil in fowl

paralysis, III, 9.

Johnson, F. L., treatment of post-operative urinary retention by instillation of mercurochrome, III, 919.

Johnson, G. C., and Smith, Rodney P., b.p. elevation. IV. Potassium bromide in water, I, 330.

Johnson, G. F. See Wolfrom, M. L.

Johnson, G. M., standardisation of potassium permanganate solutions, Î, 220. [Preparation of] standard solutions of iodine and arsenite, I, 482.

Johnson, H. G. See McElvain, S. M. Johnson, H. H. See McDonald, F. M.

Johnson, H. H., jun. See Whitmore, F. C. Johnson, H. N., and Leach, C. N., canine rabies vaccination; efficacy of a single intraperitoneal injection with phenoltreated vaccine; efficacy of a single subcutaneous injection with chloroformtreated vaccine, III, 312.

Johnson, J. B., effect of oxalic acid given intravenously on coagulation time in hamophilia, III, 646. Pathogenesis of azotæmia in hæmorrhage from upper gastro-intestinal tract, III, 878.

Johnson, J. M., glutamic acid from normal and cancerous tissue, III, 280.

See also Mayer, M. E.

Johnson, J. R., cis- and trans-forms of  $\beta \epsilon$ dimethyl- $\Delta \gamma$ -n-hexene- $\beta \epsilon$ -diol, II, 347. Jobling, W. H., and Bodamer, G. W., dienes; mercuration of day-butadiene; synthesis of βy-dialkoxy-Δαγ-butadienes, II, 83.

and Johnson, O. H., rearrangement of unsaturated αδ-glycols. II. cis- and trans-Forms of βε-dimethyl-Δγ-hexene-

β diol, II, 1.

Johnson, L. V. See Eckardt, R. E. Johnson, L. W., medical problems of diving and submarines, III, 656.

Johnson, M. H. See Halpern, O.

Johnson, M. J., polypeptidase from yeast, III, 387.

See also Berger, J.

Johnson, O. H. See Johnson, J. R. Johnson, P. See Moelwyn-Hughes, E. A. Johnson, P. E. See Hogan, A. G.

Johnson, P. R. See Koelsch, C. F.

Johnson, R. E., and Barger, A. N., determination of lactate in muscle, III, 657. See also Barger, A. N.

Johnson, T. B., pyrimidines. CLXVII. Dehydrogenation of hydrouracil, II, 109. Catalytic decomposition phenylhydrazine in presence of uracil, II, 166.

and De Sütö-Nagy, G., pyrimidines. CLXVI. Chlorination of pyrimidine

thiocyanates, II, 107.

and Edens, C. O., pyrimidines. CLXIX. Action of 5:5-bromo-oxyhydrouracil on ethylenethiocarbamide, II, 204.

See also Ambelang, J. C., and Endicott,

(Miss) M. M.

Johnson, T. H., east-west asymmetry of cosmic radiation at high latitudes and the excess of positive mesotrons, I, 95. Johnson, T. M. See Pomerantz, M. A.

Johnson, V. See Freeman, L. W.
 Johnson, V. A., correction for nuclear motion in H<sub>2</sub>+, I, 450.

Johnson, W. A., self-diffusion of silver, I, 330.

Johnson, W. W. A. See Norman, D. Johnstin, R. See Griggs, M. A.

Johnston, A. T. See Hunscher, H. A. Johnston, C. G. See Irvin, J. L.

Johnston, C. O., and Miller, E. C., modification of diurnal transpiration in wheat by infections of Puccinia triticina, III, 539.

Johnston, G. G., factors in methylation of cellulose acetate and of cellulose dissolved in benzyltrimethylammonium hydroxide, II, 187.

Johnston, G. W., and Gibson, R. B., distilling apparatus and procedure for determination of alcohol in blood and urine, III, 235.

Johnston, H. L., and Hutchison, C. A., efficiency of electrolytic separation of lithium isotopes, I, 274.

See also Hutchison, C. A.

Johnston, J. M. See McLachlan, W. W. G. Johnston, S. A. See McBain, J. W. Johnston, T. B., chorion and endometrium

of embryo H.R. 1, III, 155.

Johnston, W. W., vitamin-A in swordfish (Xiphus gladius) and tuna (Thunnus thynnus), III, 891.

Johnstone, H. L., and McCloskey, K. E. viscosities of common gases between 90° K. and room temperature, I, 78.

Joiner, R. R., and Spoerri, P. E., pyrazine series. III. Amination of 2:5-dimethylpyrazine; synthesis of 3-sulphanilamido-2:5-dimethylpyrazine, II, 336.

Jojo, W. See Raymond, W. D.

Jokl, E., and Cluver, E. H., physical fitness, III, 1057.

See also Fox. F. W.

Jolley, J. I., and Tartar, H. V., kinetics of reactions in zinc-hydrogen irreversible cell, I, 53.

Jolliffe, N. See Fein, H. D., and Wortis, H.

Jolly, E. E., gas distributors using alundum discs, I, 433.

Jones, A. M. See Scott, J. P.

Jones, A. T., treatment of casualties from lung-irritant gases with particular reference to use of oxygen and carbon dioxide mixture, III, 131. Ætiology of acne with special reference to acne of occupational origin, III, 1057.

Jones, B., halogenation of phenolic ethers and anilides. X. Substituted tolylethers. XI. Substituted benzyl ethers of some

alkylphenols, II, 221, 287.

Jones, B. E. See Stewart, H. L. Jones, C. A. See Boerner, F.

Jones, C. M., gastroenterology, III, 200. Gastrectomy and anemias, III, 243. Clinical evaluation of gastritis, III, 1015.

See also Bartlett, M. K., and White, B. V. Jones, D. B. See Horn, M. J.

Jönes, D. G.See Cook, A. H.

Jones, D. M. See Wallingford, V. H. Jones, D. S., origin of sympathetic ganglia in chick embryo, III, 319.

Jones, D. V. See Wagner, E. A.

Jones, E. I., pressor principle in urine of hyperpietics, III, 81.

See also Greenfield, A. D. M.

Jones, E. J. See Wulf, O. R. Jones, E. M. See Marker, R. E.

Jones, E. R. H., and Verrill, K. J., enolacetate in triterpene series, II,

See also Cross, L. C., Heath-Brown, B., and Heilbron, I. M.

Jones, E. T., reflexion and refraction of photons, I, 236.

Jones, F. W., wheatstone bridge circuits for automatic temperature regulators, I, 177. Particle-size measurement by X-ray method, I, 347. Tension lines. cleavage lines, and hair tracts in man, III, 153.

and Leech, P., precipitation in copper-beryllium alloys, I, 107. Pre-precipitation phenomena in age-hardening alloys, I, 164.

Jones, G., and Frizzell, L. D., theoretical and experimental analysis of capillaryrise method for measuring surface tension of solutions of electrolytes, I, 109.

Mysels, K. J., and Juda, W., conductance of electrolytes. IX. Cathode-ray oscillograph as a detector, I, 267.

and Ray, W. A., surface tension of solutions of electrolytes as a function of concentration. II., I, 165.

Jones, G. E. S. See Astwood, E. B.

Jones, G. W., and Kennedy, R. E., limits of inflammability of butadiene in air,

and Miller, W. E., ignition temperatures of acetylene-air and acetylene-oxygen mixtures, I, 419.

Jones, H. B., and Fairbrother, R. W., sulphathiazole and sulphapyridine in acute gonorrhea, III, 1045. Jones, H. C. See Doub, H. P.

Jones, H. M., injuries of ear, 111, 866.

Jones, H. P. See Rake, G.
Jones, J. A. See Holmes, J. W.
Jones, J. H., influence of fat on calcium and phosphorus metabolism, III, 22. Vitamins and nutrition of farm animals, III, 23.

See also Foster, C.

Jones, J. K. N. See Hirst, E. L. Jones, J. L., and Taylor, R. L., kinetics of thermal isomerisation of trans-dichloroethylene, I, 118.

Jones, J. W., and Alden, H. S., Roentgenray treatment of eye, III, 998.

Jones, K. K., physiology of sodium hexametaphosphate, III, 32.

and Lorenz, M., relation of calcium soaps to staphylococcal infections in skin, III, 697.

See also Felsher, I. M.

Jones, L. L., osmotic regulation in crabs of North American Pacific coast, III. 837.

Jones, L. M., and Hewitt, E. A., effects of intravenous injection of salts of sodium. calcium, and potassium on intestinal tonus and motility in dog, III, 13.

Jones, L. R. See Muir, R. D. Jones, M., intravenous insulin in schizo-

phrenia, III, 179. and Lewis, A., effort syndrome, III,

974.

See also Guttmann, E.

Jones, M. S., and Scarisbrick, R., comparison of respiration in patients with effort syndrome and in normal subjects, III, 655.

Jones, (Miss) M. Z. See Willard, (Miss) M. L.

Jones, N. See Garvey, P. H.

Jones, O. R. See Smith, F. E., jun.

Jones, P. H., effects of high environmental temperature on human body, III, 792.

Jones, R. C. See Lucas, H. J.

Jones, R. Clark, thermal diffusion coefficient for isotopes. II., I, 370.

Jones, R. G. See Gilman, H. Jones, R. L., experimental study of mechanics and rôle of muscles and ligaments in support of arch of human foot, III, 237.

Jones, R. N., absorption spectra of alkyl-chrysenes, I, 98. Absorption spectra of derivatives of 1:2-benzanthracene, I, 98. Absorption spectra of thio-cyano-derivatives of 1:2-benzanthracene, I, 446.

See also Talbot, N. B.

Jones, R. R., Crosson, J. W., Griffith, F. E., Sayers, R. R., Schrenk, H. H., and Levy, E., administration of pure oxygen to compressed-air workers during decompression; prevention of severe compressed-air illness, III, 384.

Jones, T. R. See McCullagh, E. P. Jones, W. J. G. See Owen, L. N. Jores, W. S. See Cole, J. W. Jonesco, G. See Malméjac, J.

Jone, W., explosion reactions; reaction between carbon monoxide and oxygen. I., I, 472.

Joplin, G. A. See Harvey, M. H.

Jordan, A. See Hadfield, G.

Jordan, D. O., effect of organic dye ions on electrokinetic potential at glass-water interface, I, 413.

Jordan, E. B., 12CH2-14N mass difference,

Jordan, E. O. See Burrows, W. Jordan, E. S. See Blandau, R. J. Jordan, W. E., Dyas, H. E., and Hill, D. G., activated complex theory applied to fast reactions; reaction of aldehloroimines with bases, I, 474.

Jordan, W. H., three-phase electrocardio-

graph mixing circuit, III, 972.

Jordi, A., determination of sulphur in urine for early diagnosis of benzene intoxication, III, 701.

Jordon, J. W., Dolce, F. A., and Osborne, E. D., soaps and dermatitis of hands,

Jorgensen, M. N., preparation of thyrotropic hormone, III, 439.

Joris, G. G. See Guyer, W. R. F.

Jorissen, W. P., Bassett, H., Damiens, A., Fichter, F., and Rémy, H., rules for naming inorganic compounds, I, 277. Jorpes, E. See Crafoord, C.

Joseph, E. G., whole blood as means of preventing peritonitis and adhesions, III, 74.

Joseph, M. See Anderson, Evelyn.

Joshel, L. M., Hall, S. A., and Palkin, S., determination of unsaturation in the terpene series, II, 299.

Joshi, M.C. See Limaye, D.B.

Joshi, S. S., and Deshmukh, G. S., effect of light in gases under electrical discharge, I, 393.

and Narasimhan, V., light effect in chlorine under electrical discharge, I,

and Pnrushottam, A., ammonia synthesis from active nitrogen and hydrogen, I, 172. Coagulation of colloids by exposure to high-frequency oscillations. I, 413.

Joski, J. See Osgood, E. E.

Joslin, C. L., and Christensen, T. A., prophylaxis and treatment of whooping cough with pertussis antigen, III, 392.

Joslyn, M. A. See Hassid, W. Z., and Mackinney, G.

Jourdan, F. See Hermann, H. Jovanović, M. See Milosavlević, D. Jowett, M., determination of vitamin-B, in

urine, III, 116.

Joy, H. H., sulphapyridine in experimental B. pyocyaneus infection of cornea, III, 292.

Joyce, L. See Loofbourow, J. R,

Joyce, R. L. See Butt, E. M. Ju, T. Y., Shen, G., and Wood, C. E., synthesis and properties of mono-nalkylbenzenes. II. Preparation and properties of intermediate ketones and hydrocarbons, II, 37.

Juba, A. See Benedek, L.

Juchnovskaja, O. P. See Golombik, M. S. Juda, W. See Jones, G.

Judanova, O., chemical composition of Calanus finmarchicus in the Barento Sea.

Jnday, C. See Knudson, H. W.

Judd, E. S. See Vanzart, F. R.

Judin, F. See Ravdel, A. Judin, M. See Bresler, S. E.

Judin, N. D., blood picture during physiological senility, III, 7. Action of plants of Brassica type on thyroid gland (problem of "cabbage goitre"), III,

Judkevitsch, F. S., See Ritov, S. M. Jürgens, B., effect of various stimuli on autonomic nervous system in man, III, 998.

Juhasz, R., and Yntema, L. F., additive compounds of zinc, cadmium, cobalt, and nickel halides with 1:4-dioxan, II,

Jukes, T. H., reproduction in rats on synthetic B-complex supplement, III, 283. Distribution of pantothenic acid in products of natural origin, III, 519. Effect of choline and other

supplements on perosis, III, 774. See also McElroy, L. W., and Spies, T. D.

Julian, O. C. See Allen, J. G.

Jullien, A., effect of tar injections on cephalopod molluses, III, 113. Variations in content of active substance in purple gland, III, 886. See also Cardot, H.

Jundell, J., Hanson, R., and Sandberg, T., metabolism in dental enamel and pro-

phylaxis against caries, III, 18.
Jnneja, G. L., Narang, K. S., and Ray,
J. N., sulphonamides. I., II, 22.

Junet, R., and Sciclounoff, F., azotæmia following gastric administration of blood, III, 332.

ng, C., semi-permeability, I, Renal function. I.—IV., Ill, 273. Jung,  $C_{\cdot,\cdot}$ Jung, E. E. See Wunder, P. A.

Jung, F., vitamin-C content of dried milk, III, 375.

Jung, F.J. See Isaacs, B.L.Jung, J.W., value of fluorescence microscopy in detection of B. tuberculosis, III, 311.

Jung, R. W. See Werch, S. C. Jung, W., action of iodates on hypophosphoric acid, I, 305.

Jungeblut, C. W. See Clark, A. R.

Junusov, S., Konovalova, R. A., and Orékhov, A. P., alkaloids of the Papaveraceæ family. VII. Structure of

armepavine, II, 79.

Jurigin, D. N. See Schtschukina, M. N. Jurkevitsch, V. See Kizel, A.
Jurshenko, T. I., swelling and solution of

highly polymerised substances, I, 13.

Juschin, V. G. See Drinberg, A. J.

Juster, M. H. See Charin, A. N.

Justi, E., thermodynamics of real gas mixtures. II., I, 8.

Justin-Besancon, Schiff-Wertheimer.

Jusupova, S. M. See Antipov-Karataev.

I. N.
Juza, V. A., and Kopil, L. D., oscillographic study of polarisation of metal electrodes. III. Copper and nickel electrodes, I, 471.

Juzefovitsch, A. A. See Rusinov, L. I.

K.

Kabanov, B. N. See Krivolapova, E. V. Kabat, E. A., association of phosphatase with a material in kidney sedimentable at high speed, and its liberation by autolysis, III, 796. and Furth, J., histochemical study of

distribution of alkaline phosphatase in various normal and neoplastic tissues,

111, 771.

Kabat, H., greater resistance of young animals to arrest of brain circulation, III, 857.

See also Freedman, A. M., and Lorber, V. Kabatschnik, M. I., and Zitzer, A. I., aminoanabasines. V. Aminomethylanabasines and their acyl derivatives, II,

Kable, V. N. See Livingstone, H. M. Kadanoff, D., differences in arborisation of cutaneous nerves and veins of upper extremity in uniovular and binovular twins, III, 545.

Kadesch, R. G., and Weller, S. W., steric inhibition of resonance in aromatio carbonyl compounds, I, 322.

Kadischevitsch, A. E., secondary electron emission from metals, I, 186.

Kaefely, A. See Kaufman, P.

Kaether, H., and Schaefer, K. W. P., calcium content of normal skin and sclerodermia, III, 885.

Kafka, V., differences in ventricular, cisternal, and lumbar fluid, III, 997.

Kagami, Y., effect of environment on radiosensitivity of animal cells. I .-- IV. Radiosensitivity of sea urchin ova, III,

Kagan, B. M., elimination of standards and nomograms in determination of whole blood specific gravity by falling-drop technique, III, 829. Kagan, M. J. See Lubarski, G. D.

Kageyama, S. See Asagoe, K.

Kahle, P. J., and Maltry, E., treatment of hyperplasia of prostate with diethyl-stilboestrol and its dipropionate, III, 872.

Kahle, S., tendency to hæmorrhage in printers, III, 328.

Kahlenberg, O. J. See Supplee, G. C.

Kahn, J. R., and Ingraham, E. S., jun., cardiac hypertrophy and coronary arteriosclerosis in hypertension, III, 560.

Kahn, M. C., mobility velocities of histiocytes from normal and sensitised guineapigs, III, 836. Bacteriostatic properties of histiocytes toward M. tuberculosis as determined by single cell method, III, Kahn, R. L., serology of syphilis, III, 231. Kahn, S., and Spring, M., thrombosis of hepatic veins, III, 422. Kahra, L. Sec Virtanen, A. I.

Kaiden, M. H., treatment of otitic meningitis, III, 906.

Kaijser, K. G., renal rickets, III, 108. Interposition of colon, III, 154. Kaiser, A. D. See Dietel, F. W.

Kaiser, H. See East, B. R. Kaiyone, T., and Kurono, G., constituent of Fomes officinalis, Fris., II, 143.

Kajola, N., sulphur derivatives of  $\beta$ -di-ketones. I. Di-(2:6-diketo-4:4-dimethyl-cyclohexyl) sulphide, II, 105.

Kakinuma, H., solubility of carbamide in

water, I, 373.

Kakinuma, S., micro-determination of glucose, free and conjugated glu-curonic acid. II. Determination of glucuronic acid in presence of glucose in human and rabbit urine, III, 884.

and Tamura, T., micro-determination of glucose, free and conjugated glu-curonic acid. III. Use of Saccharomyces sake No. 6 as fermentative yeast, III, 947.

Kakusui, T. See Kasahara, M. Kalaschnikov, A. G., hysteresis in feebly magnetic sedimentary rocks, I, 226. Kalckar, H. M. See Colowick, S. P.

Kalfa, S. J., elasto-tonometric studies on experimental raising of intraocular pressure. I, Hypertony due to subconjunctival injection of sodium chloride, III, 180.

Kalinenko, V. O., physiological characteristic of iron bacteria Leptothrix ochracea,

III, 473.

Kalinin, S. K. See Novochatski, I. P. Kalinkevitsch, A., effect of potassium and nitrogen supply on carbohydrate metabolism of kok-sagyz plant, III, 540.

Kaliteevskaja, A. I. See Granskaja, T. A. Kalkstein, M. See Kammerer, W. H.,

Plummer, N., and Solomon, S.
Kallmann, F. J., operation of genetic factors in pathogenesis of mental disorders, III, 860.

Kallmann, S., and Pristera, F., determination of antimony, tin, and bismuth, 1,129. Kallós, P., nutritive allergy, III, 56.

and Kallos-Deffner, L., application of complement-binding reaction to differentiation of species of yeast, III, 227.

Kallós-Deffner, L. See Kallós, P. Kalmus, H., relation between colour and permeability of insect cuticles, III, 450. Kaltia, A., effect of nitrogen starvation on

spring wheat, III, 480.

Kaltreider, N. L. See Meneely, G. R. Kalvarskaja, R. S. See Kritschevski, I. R. Kalz, F., theoretical considerations and clinical use of Grenz rays in dermatology,

III, 792. Kamai, G., stereochemistry of tervalent arsenic. III. Preparation of p-ethylphenylarsinobenzoic acid, and its attempted resolution into optical antipodes, II, 111.

and Zoroastrova, V. M., alkyl esters of mono- and di-arylarsenious acids, II, 24. Asymmetrical analogues cacodyl oxide, II, 342. Kameda, Y. See Asano, M.

Kamei, R., effect of vohimbine on vessels of isolated organs, III, 613. See also Ohsako, H.

Kamen, M. D. See Carson, S. F., and Ruben, S.

Kamenskaja, S., and Medvedev, S., polymerisation of vinyl acetate in presence of benzoyl peroxide in benzene solution,

Kamermans, M. A., crystal structure of strontium bromide, I, 154.

Kamiike, O. Sec Negishi, R.

Kamiko, K., development of Ankulostoma caninum in rabbit after oral infection, III. 106.

Kamimura, T., influence of manganese on growth of bone, III, 638.

Kamin, H. See Klein, J. R.

Kaminester, S. See Reynolds, S. R. M. Kamiya, N., control of protoplasmic streaming, III, 300.

Kammer, A. G., studies of workers exposed during production of lead-bearing steel (Ledloy), III, 701.

Kammer, E. See Atanasoff, J. V.
Kammerer, W. H., Kalkstein, M., and Solomon, S., clinical use of sulphamethylthiazole, III, 1046.

Sec also Plummer, N.

Kamogawa, H., secondary emission and electron diffraction on a glass surface, I, 7.

Kamp, J. van de, and Sletzinger, M. preparation of α-chloro-aββ-triphenylethylene, II, 284.

Kampf, E., chondrodystrophia calcificans congenita, III, 638.

Kan, M., action of drugs on chronaxie of toad's heart, III, 77.

Kanbayashi, H. See Kasahara, M.
Kanda, E. See Nakamura, S.

Kane, A. P. See Wishnofsky, M.

Kane, F. See Boyle, P. J. Kane, G., equation of state of solid helium,

Kane, S. S. See Kharasch, M. S. Kanehara, Y. See Hamamura, Y. Kaneko, M. See Sueda, H.

Kaneko, S., change of concentration in a solution by electrolysis, I, 469.

and Kawamura, K., deposition of metallic powder by electrolysis, I, 479.

Kaneyuki, M., action of adrenaline on blood-sugar of rabbit embryo, III, 95.

Kann, S. See Sobotka, H.

Kanne, W. R., Taschek, R. F., and Ragan, G. L., resonance scattered protons from <sup>11</sup>B and <sup>19</sup>F, I, 24.

Kanner, M. H. See Barschall, H. H. Kanning, E. W. See Hobson, R. W. Kanno, T. See Tsuda, K.

Kanof, N. M., and Rosetenberg, A., jun., persistence of sensitivity of eczematous type after prolonged removal from contact with allergen, III, 813.

Kantorovitsch, B., hydrodynamic problems relating to processes of combustion and gasification of a layer of combustible

solid, I, 171.

Kao, C. H., and Chang, Tsing-Lien, solubilities of cupric selenates from 0° to 40°, I, 164.

Kao, H., and Sherman, H. C., influence of nutritional intake on concentration of vitamin-A in body tissues, III, 283.

Kao, H. C. See Conner, R. T. Kao, K. W. See Yasui, S. Kao, Y. S. See Chi, Y. F.

Kapeller-Adler, R., histidine metabolism in toxemia of pregnancy, III, 359.

Kaplan, I. See Cohn, D. J.

Kaplan, I. I., radiation therapy of diphtheria carriers, III, 224. Irradiation of brain tumours, III, 859.

Kaplan, I. W., treatment of post-operative adynamic ileus and small bowel obstruction with Miller-Abbott tube, III, 881.

Kaplan, J. F. See Marvel, C. S. Kaplan, J. J., and Visscher, M. B., toxicity of glucosides of Digitalis lanata in pigeon, cat, and dog; influence of anæsthesia, III, 127.

Kaplan, L. G., and Katz, L. N., characteristic electrocardiograms in left ventricular strain with and without axis deviation,

III, 732.

Kaplan, V. A. Sce Bulankin, I. N.

Kapnick, I., and Fine, J., ineffectiveness of adrenal cortical hormone on serum complement of guinea-pig, III, 649. Kapp, F., Friedland, C. K., and Landis,

E. M., skin temperature of hypertensive rabbits and pressor effects of heated kidney extracts, III, 654.

Kapp, H., effect of diet on mineral content in mice, III, 371.

and Ilian, B., importance of chronio gastritis as precancerous condition, ĬII, 20.

Kappel, L. See Carroll, G. Kappeli, W., influence of vitamin-C on labour pains, III, 197.

Kappes, W. C., symptoms, sequelæ, and treatment of nodular goitre, 111, 752.

Kapur, A. N. See Bhatnagar, S. S. Kapur, P. L., and Verma, M. R., determination of iodate ion in presence of cuprio

ion, I, 385. Kapustina, V. I. See Gurevitsch, I. D. Kapustinski, A. F., solubility product and solubility of metal sulphides in water, I, 164. Thermodynamics of the manganese ion; entropy of aqueous

ions, I, 417. and Korschunov, I. A., heat of formation

of silver sulphide, I, 416.

and Maltzev, V. A., partial pressure of hydrogen bromide over its solution in benzene and heat of solution of hydrogen bromide in benzene, I. 416.

and Schmelev, B. A., composition-heat of activation diagrams, I, 273.

Kar, K. C., inelastic scattering of a beam of particles by hydrogen and helium, I,

Karabin, J. E., and Anderson, E. R., micro-test for plasma-prothrombin, III, 327.

Karandin, B. N. See Todes, O. M.

Karaoglanov, Z., sensitivities of detection of lead and sulphide ions as lead sulphobromide, I, 280. Sensitivity of chemical reactions. III. Different types of types chemical reactions, I, 427.

Karasev, K. I., synthesis of ethylenic, diethylenic, and other hydrocarbons, and their electro-polymerisation. I. and II., II, 277.

and Chabarova, A. V., synthesis and octane number of unsaturated alcohols and diethylenie hydrocarbons, II, 277.

Karateev, A. V., ehloro-derivatives of ligninsulphonic acids, II, 107.

Karaty, S., Rose, B., and Browne, J. S. L., decrease of histaminase in tissue by adrenalectomy and its restoration by cortico-adrenal extract, III, 755.

Karelova, L. E. See Levina, R. J.

Karelschtadt, A. M. See Schulman, M. S. Kargin, V., and Slonimski, G., process of viscous flow in highly-polymeric materials, I, 412.

Kargin, V. A., and Leipunskaja, D. I., diffraction of fast electrons in thin films of hydratocellulose, I, 454.

and Michailov, N. V., X-ray study of orientation of artificial fibres. I., I,

See also Kisseleva, V. V., and Michailov, N. V.

Kargopoltzeva, V. V. See Esafov, V. I. Kariakin, J. V., colorimetric determination of  $p_{\rm H}$  in coloured or turbid solutions, I, 385.

Karim, S. M. See Asundi, R. K. Karjagina, M. K., and Talanova, E. V., carnosine in muscle extracts, III, 849.

Karjala, S. A., and Heidelberger, M., specific and non-specific cell polysaccharides of an avian strain of tubercle bacillus, III, 311.

Kark, R., and Meiklejohn, A. P., pellagra and porphyrinuria, III, 519.

Souter, A. W., and Hayward, J. C., hæmorrhagic diathesis in idiopathic steatorrhœa: association with vitamin-K deficiency, III, 166.

Karlik, B. See Petterson, H.

Karlson, A. G., and Merchant, I. A., cultural and biochemical properties of Erysipelothrix rhusiopathiæ, III, 929.

Karnosh, L. J., and Gardner, W. J., evaluation of physical and mental capabilities following removal of right cerebral hemisphere, III, 856. and Scherb, R. F., trophic lesions in 5th nerve distribution, III, 342.

Karp, F. L., high-frequency current in treatment of hypertrichosis, III, 1056.

Karp, J. Sec Zondek, H.

Karpatschov, S., and Stromberg, A., electrocapillary curves of alloys in fused

Karr, W. G., Abbott, W. O., Hoffman, O. D., and Miller, T. G., intubation studies of human small intestine; concentration and movement of glucose solutions in stomach and duodenum, III, 105.

See also Abbott, IV. O.

Karrer, P., and Bussmann, G., dl-a-tocopherolphosphoric ester, II, 51. Action of diazomethane on hippuryl chloride, II, 304.

and Epprecht, A., benzenesulphonylguanidine and similar compounds. II, 214.

and Geiger, A., monascin, II, 265.

Geiger, A., Ruegger, A., and Schwab, G., synthesis of 2-phytyl-1:4-naphthaquinone, II, 142.

and Hoffmann, O., further homologue of

a-tocopherol, II, 50.

and Koenig, H., Aac-phytadienoic acid and enzymic dehydrogenation of phytanic, phytenic, and phytadienoic acid, II, 210.

Koenig, H., and Legler, R., behaviour of octopine towards enzymes, III,

Legler, R., and Schwab, G., unsaturated derivative of tocopherol series (? dl-∆3dehydro-a-tocopherol), II, 50.

and Rentschler, H., behaviour of different tocopherols in the colour reaction with

nitric acid, II, 266. and Schläpfer, R., dl-5:7-diethyltocol, a further homologue of a-tocopherol, II, 266.

and Schwab, G., constitution of iso-carotene, II, 125. Natural occurrence of 5-hydroxyflavone, III, 714.

Karrer, P., and Yap, K. S., additional lower homologue of a-tocopherol, II, 144. Synthesis of homoisophytol and of an isoprene homologue of a-tocopherol, II, 300.

Karshavina, N. A. See Tschuchanov, Z, F.

Karsner, H. T., Simon, M. A., and Fujiwara, T. F., relation of experimental pulmonary arterial hypertension to arteriosclerosis, III, 979.

Karström, H. See Virtanen, A. I. Kartaschov, A. I. See Hefter, J. M. Kartsonis, P. L. See Sondern, C. W.

Karush, F., measurement of fast reactions by absorption spectrophotometry and its application to respiratory enzyme kinetics, I, 215.

See also Epstein, L. F.

Kasahara, M., Kakusui, T., and Nan, S. S., influence of ultra-acoustic sound waves on tetanus toxin, III, 395. Bloodbrain barrier in experimental poliomyelitis, III, 490.

and Ogata, S., differentiation of human and animal milk [by ultra-sound waves], III, 451.

Tatsumi, M., Ogata, S., Yoshio, K., and Kanbayashi, H., influence of ultrasound waves on vaccinia virus, III, 396.

Kasanin, J. See Gerstley, J. R. Kasarnovski. See under Kazarnovski. Kasatkina, N. P. See Chanin, M. N.

Kashekar, G. S., mechanism of swelling in cellulose, I, 44. Viscosities of aqueous solutions, I, 107. Vapour pressures of aqueous solutions, I, 250.

Kaschirskich, V. A., formation of humins during acid hydrolysis of proteins, II,

Kaschuk, M. E., objective signs of disturbance of retinal circulation in glaucoma, III, 181. See also Filatov, V. P.

Kasiwabara, N. See Morigami, S.

Kass, J. P., Nichols, J., and Burr, G. O., geometric isomerism of linolenic acids; elaidolinolenic acid, II, 184. See also Myers, J. E.

Kastert, influence of thyroid on liver cell, III, 93.

Kastlin, G. J., King, C. G., Schlesinger, C. R., and Mitchell, J. West, vitamin-C deficiency, III, 287.

Kastorskaja, T. L. See Vilenski, V. A. Katada, M. See Ochiai, E.

Katagiri, H., and Kitahara, K., thermo-bacterium Orla-Jensen, III, 50.

Katersky, E. M. See Gilligan, D. R., and Lowry, O. II.

Kato, K., micro-fragility test for measuring erythrocyte resistance, III, 323.

and Iob, V., influence of cobalt on iron transportation and storage, III, 246.

and Li, P. K., quantitative determina-tion of blood-pyruvic acid in infants and children, III, 971.

See also Li, P. K., and Wentz, V. B.

Kato, S. See Sisido, K. Kato, T. See Tsurumi, M.

Kato, Takeo, alaskitic gold vein of the Kinsei Mine, Korea, I, 61.

Katrenko, D. A. See Knuniantz, I. L. Katscherova, S. A. See Ginzburg, M. B., and Goldstein, B. I.

Katsurai, T., and Fuda, M., influence of alcohols on precipitate formation of hydroxides of aluminium and iron, I,

Katsurai, T., and Kita, T., aluminium hydroxide sol prepared by autoclave treatment, I, 81.

Katui, K., absorption and production of rabbit amniotic fluid, III, 1012.

Katz, A., contrast staining method for hæmosiderin pigment in heart failure cells, III, 334.

Katz, B., and Kuffler, S. W., multiple motor innervation of frog's sartorius muscle, III, 981.

Katz, G., action of anæsthesia on histamine release in anaphylactic shock, III, 39. Rôle of blood cells in anaphylactic histamine release, III, 912.

Katz, J. See Plunkett, R. E.

Katz, L. N., Sanders, A., Megibow, R. S., and Carlen, S., heart size and experimental atheromatosis in rabbit, III. 249.

See also Kaplan, L. G., Lindner, E., Megibow,  $\hat{R}$ . S., and Sugarman,  $\hat{H}$ .

Katz, S. See Hussey, H. H.

Katzenelbogen, S., Simon, A., Coyne, A. R., Vigue, C., and Cohn, R., insulin treatment in schizophrenic patients, III,

Katzenstein, R., and Murphy, J. P., acute sclerosing vascular disease, III, 653.

See also Winternitz, M. C. Katzin, E. M. See Levine, P.

Katzin, L. I., frog skin potential and sex, III, 268.

Katznelson, H., and Wilson, J. K., occurrence of Rhizobium meliloti bacteriophage in soils, III, 934.

Katznelson, Z. S., influence of lithium salts on course of histogenesis in urodeles, III, 319.

Kaucher, M. See Smith, A. H. Kaufman, P., Kaefely, A., O'Brien, C. Burnstein, C., Kling, S. K., and Dmitruk IV., pneumococcus polysaccharide in oldage pneumonia, III, 611.

Kaufman, R. E., serological reactions for syphilis in infectious mononucleosis,

III, 932.

and Saal, F. von, leucocyte changes in acute peritoneal irritation, III, 244.

Kaufman, W. See Nahum, L. H. Kaufmann, A. R. See Bitter, F., Rado, G. T., and Starr, C.

Kaufmann, B. P., time interval between X-irradiation of Drosophila sperm and chromosome recombination, III, 319.

Kaufmann, J., and Koster, H., serial planeography (serioscopy) and serial planigraphy, III, 152.

and Lowenstein, L., acute leukosis, III, 417.

Kaufmann, S. See Ruzicka, L. Kaufmann, S. M., Fox-Fordyce disease [axillary neurodermatosis] in male, III,

Kautz, F. G. See Dunham, C. L. Kauzmann, W., and Eyring, H., effect of rotation of groups about bonds on optical rotatory power, I, 99. Viscous flow of large molecules, I, 249.

Kavanagh, F., photo-electric fluorimeter and applications, I, 178.

Kavetzki, N. S. See Skobetz, E. M. Kavetzki, R. E., stimulation of connective

tissue in old age, III, 18. Senility and cancer, III, 19.

and Pasternak, M.N., action of cytotoxic anti-reticular serum on blood-brain barrier, III, 179.

Kawada, T., hyperfine structure of osmium lines, I, 393.

Kawaguchi, R., and Kim, K. W., constituents of seeds of Zyzyphus vulgaris, Lamark, var. spinosus, Bunge. I. and II., II, 300, 328. Constituents of Persicaria hydropiper. III., II, 302. Constituents of branches of Akehia quinata, Deene, II, 328.

Kawai, H. See Kuroyanagi, S.

Kawai, S., ester interchange between oils and glycerol. III. Sperm-head oil and kurokozame oil, II, 159. Esterification of higher fatty acids with glycerol. V. Esterification of two-component fatty acid mixture into monoglyceride, II, 159.

Kawakami, H., Yamada,  $\bar{K}$ ., and Morimoto, S., efficacy of tryptan in anemia, III, 961.

and Yogo, E., treatment of neonatal jaundice, III, 1019.

Yogo, E., and Imati, Y., clinical findings and treatment in eclampsia, III, 1012.

Kawakami, I., [enzymic] decomposition of glucosamine, III, 138.

Kawakami, K., and Miyayoshi, H., vitamin content of dried mushrooms produced in Manchoukuo, III, 684.

Kawamura, A. See Konishi, K. Kawamura, K. See Kaneko, S.

Kawashima, R., and Nagata, M., colloidal clay in solonchak and solonetz soils in Manchuria, I, 356.

Kawerau, E., determination of ammonia and carbamide by modification of Conway diffusion method, I, 426. See also Dockeray, G. C.

Kay, C. F., experimental nephritis in rabbits injected with nephrotoxic duck serum, III, 585.

Kay, L. J., capillary tube experiments with

gases, I, 180.

Kay, W. B., liquid-vapour equilibrium relations in binary systems; n-butane-nheptane system, I, 299.

Kaye, G., scope and utility of absorption and pressure techniques in gas anæsthesia, III, 218.

aye, H:, treatment of angiomatosis retine, III, 569. Kaye, H.,

Kaye, I. A., Leibner, I. W., and Sobel, A. E., apparatus for extraction of lipins from liquids and solids, with further applications to fractionation of fæcal fat, III, 543.

Kazakova,  $V.\ A.$  See Iljinski,  $M.\ A.$  Kazakova,  $V.\ T.$  See Mereshinski,  $M.\ F.$ Kazarnovski, I. A., structure of inorganic

peroxides, I, 448.

Kazarnovski, J. S., compressibility of ammonia at high temperatures and pressures, I, 78. Equation of state for gas mixtures, I, 330.

Simonov, G. B., and Aristov, G. E., compressibility of nitrogen-hydrogenammonia mixtures at high pressures and temperatures, I, 460.

Kazeeva, E. V. See Krestinski, I'. N. Kazimoto, Y., and Tanabe, E., pharmacological actions of Allium scorodoprasum, III, 699.

Kaziwara, Y., tuberculosis flocculation reaction, III, 476.

Kazuno, T., toad bile. VII. Pentahydroxybufostane, C<sub>28</sub>H<sub>50</sub>O<sub>5</sub>, II, 361.
Kearney, R. W., Comfort, M. W., and

Osterberg, A. E.,  $p_{\rm H}$  of duodenal contents under fasting conditions in normal persons and in patients with duodenal ulcer, III, 1015.

Kearns, W. M. See Simonson, E. Kearse, W. O. See Scott, A. W.

Kedrova, N. K. See Rushentzeva, A. K. Keefer, R. M., and Reiber, H. G., interaction of ions and dipolar ions. II. Solubility of silver and lead iodides in glycine and in alanine solutions, I, 264.

Reiber, H. G., and Bisson, C. S., interaction of ions and dipolar ions. I. Solubility of barium and calcium iodates in glycine and in alanine solutions, I, 264.

Keeler, C. E., tattoo punch for numbering rats, III, 151. Mounting small specimens of mammals and birds, III, 485.

See also Cole, V. V.

Keenan, G. L. See Grove, D. C. Keenan, P. C. See Henyey, L. G.

Keeper, C. S., Rantz, L. A., and Rammelkamp, C. A., hæmolytic streptococcal pneumonia and empyema, III, 905.

egeles, G., heat of neutralisation of sodium hydroxide with hydrochloric acid, I, 267. Kebl, H., morphology and physiology of zygophores of Mucor mucedo, III, 48.

Kehoe, R. A., lead hazards in phases of

printing. III., III, 920. Cholail, J., and Story, R. V., manganese, lead, tin, aluminium, copper, and silver in normal biological material, III, 18.

Keighley, G., and Wiersma, C. A. G., heat production of slow and fast contractions of crustaccan muscle with double motor innervation, III, 737.

Keil, F. C., jun., and Root, W. S., parasympathetic sensitisation in cat's eye, III, 433.

Keil, H. See Dobes, W. L.

Keil, H. L., and Nelson, V. E., copper and iron metabolism, III, 902.

Keilhack, H. See Henning, N.

Keilin, D., and Harpley, C. H., cytochrome system in B. coli commune, III, 709.

and Hartree, E. F., absorption spectra of hæmoglobin in solution and in red blood corpuscles, 1, 398. Succinic dehydrogenase-cytochrome system of cells; intracellular respiratory system catalysing aërobic oxidation of succinic acid, III, 134.

See also Feldberg, W.

Keith, A., hand of Sterkfontein, ape, III, 413.

Keith, H. M., and Baggenstoss, A. H., primary arteritis (periarteritis nodosa) among children, III, 844.

See also Baggenstoss, A. II.

Keith, N. M. See Goudsmit, A.
Keith, T. B. See Miller, R. C.
Keizer, D. P. R., vitamin-K and its significance in pediatrics, III, 1038.

Kekwick, A., Marriott, H. L., Maycoek, W. d'A., and Whitby, L. E. H., secondary shock, III, 335.

See also Bushby, S. R. M., and Buttle,  $G.\ A.\ H.$ 

Kekwick, R. A., Knight, B. C. J. G., Macfarlane, M. G., and Record, B. R., composition of diphtheria antitoxic sera, 111, 802.

and Record, B. R., physical properties of diphtheria antitoxic horse sera, III,

Kelkar, G. R., and Limaye, D. B., furo-chromone group. I. Furochromones from hydroxychromones, II, 374.

Kellaway, C. H., and Trethewie, E. R., extraction of adenyl compounds from tissues, III, 152. Injury of tissue cells and liberation of pharmacologically active substances by toxins of Cl. welchii types B and C, III, 1068.

Kellaway, C. II., Trethewie, E. R., and Turner, A. W., liberation of histamine and of adenyl compounds by toxin of Cl. welchii type D, III, 142. Neurotoxic and circulatory effects of toxin of Cl. welchii type D, III, 142.

Kelleher, W. H., acute poliomyelitis, III, 859.

Keller, C. J., and Künzel, O., surface tension of cisternal fluid. III., III, 997.

Keller, H. Sec Glanzmann, E Keller, H. M. See Cooper, M. L. Keller, J. M. See Christy, R. F.

Keller, M. L., and Minot, A. S., [" pot liquor"] neglected source of vitamin-C for infants, III, 1037.

Keller, R. N., co-ordination theory and coordination compounds of platinum group

metals, I, 278.

Keller, W., hæmaturia in infancy, III, 365. Kellerman, E. W., specific heat of sodium chloride crystal, 1, 369.

Kelley, K. K., specific heats at low temperatures of crystalline boric oxide, boron carbide, and silicon carbide, I, 248. Data on theoretical metallurgy. IX. Entropies of inorganic substances, I,

Southard, J. C., and Anderson, C. T., thermodynamic properties of gypsum and its dehydration products, I, 284.

Kelley, R. G., tuberculin as therapeutic measure in ophthalmology, III, 667. Kellie, A. E., and Zilva, S. S., action of

l-ascorbic acid on the in-vitro respiration of liver tissue from guinea-pigs on a restricted diet. I., Ill, 893.

Kellner, B., fat morphology of carcinoma and disjunction of tumour cells, III, 19.

Kellner, L., vibrations and molecular structure of carbamide and guani-donium, I, 292. Infra-red absorption spectra of amino-compounds, I, 292. Kellogg, E. IV. See Drew, R. O.

Kellogg, F., Mettier, S. R., and Purviance, K., hypochromic anæmia in dogs. I. Evaluation of a standard bread diet and of a meat diet on formation of hæmoglobin before and after gastrectomy, III, 114.

Kellogg, M. P., development of periovarial sac in white rat, III, 485.

Kelly, A. R. See Sydenstricker, V. P. See Drew, D. H. K.

Kelly, D. B. See Drew, D. Kelly, D. F. See Reilly, J.

Kelly, D. H., tuberculosis in childhood, III, 629.

Kelly, E. See Muelder, K. D. Kelsall, M. A. See Crabb, E. D.

Kelsey, F. E., effect of drugs on bloodlipins, III, 732.

and Longenecker, H. E., distribution and characterisation of ox plasma-fatty acids, III, 731.

Kelso, E. A., and Felsing, W. A., pressurevolume-temperature relations of nhexane and  $\dot{\beta}$ -methylpentane, I, 200.

Wash, G., Horeczy, J.  $\hat{T}$ ., Shive, B., and Felsing, W. A., vapour-phase catalytic conversion of methyltert.-butylcarbinol, II, 347.

Keltch, A. K. See Krahl, M. E.

Kemmerer, A. R., [determination of] riboflavin, III, 777. See also Fraps, G. S.

Kemp, C. R. See Paul, W. D. Kemp, F. H. See Black, D. A. K.

Kempe, L. L., and Shipman, H. R., cottonplug wrapping machine for bacteriological culture tubes and bottles, III, 535. Kempi, H., and Wedler, H. W., metabolic changes in dogs after hypophysectomy, III, 351.

Kempner, W., Wise, B., and Schlayer, C. manometric determination of effects of various sulphanilamide compounds on Brucella melitensis, III, 125.

Kempster, E., Breiter, H., Mills, R., MeKey, B., Bernds, M., and Outhouse, J., utilisation of calcium of dicalcium phosphate by children, III, 22.

Sec also Mills, R.

Kempster, H. L. See Hogan, A. G. Kenamore, B., biopsy forceps for flexible gastroscope, III, 511. Kench, J. E. See Chalmers, J. N. M.

Kendall, A. I., and Chinn, H., occurrence of ascorbic acid-fermenting bacteria in cow's stomach, III, 1014.

and Walker, A. W., bacterial meta-bolism. CV. Effects of ozone on bacteria and their respective phages. CVI. "Prezono" of bacteriophages, III, 145.

Kendall, E. C., function of adrenal cortex, III, 1005.

See also Ingle, D. J., and Wells, B. B. Kendall, F. E., human serum-proteins. II, Crystallisation of human serumalbumin, III, 492.

Kendrew, J. C., and Moelwyn-Hughes, E. A., kinetics of mutarotation in solution, 1, 51.

Kennaway, E. L. See Badger, G. M., and Cook, J. W.

See Badger, G. M., Kennaway, N. M.and Cook, J. W.

Kennedy, A., adrenaline ascorbate suspensions in bronchial asthma, III, 981.

Kennedy, A. S., Snider, O., Hazen, J. S.and McLean, C., dietary management of intestinal tuberculosis, III, 512.

Kennedy, C. B., Howles, J. K., Smullen, G., and Kopfler, M. E., treatment of lymphogranuloma inguinale with neoprontosil, III, 906.

Kennedy, F., Wortis, S. B., and Wortis, H., clinical evidence for cerebral vasomotor changes, III, 844.

Kennedy, J. See Shih, H. E. Kennedy, J. A., and Clark, S. L., ductus arteriosus of guinea-pig in relation to its method of closure, III, 550.

Kennedy, J. W. See Seaborg, G. T.

Kennedy, P. C., and Finland, M., fatal agranulocytosis from sulphathiazole, III,

Kennedy, R. See Rhoads, T. F. Kennedy, R. E. See Jones, G. W.

Kennedy, R. L. J., surgical and medical treatment of exophthalmic goitre of children, III, 183. Barker, N. W., and Walters, W., malig-

nant hypertension in child, III, 337.

Kennedy, R. M., Sagenkahn, M., and Aston, J. G., heat capacity and entropy, heats of fusion and vaporisation, and vapour pressure of dimethyl ether; density of gaseous dimethyl ether, I,

See also Aston, J. G., and Messerly, G. H.

Kenner, J., carbonyls, I, 481. Property of conjugated systems, II, 181. Diazotisation, II, 220.

Kennerdell, E. H. See Atkinson, W. J. Kenneth, J. H., average gestation period and  $n\pi$ , III, 359.

Kenny, C.L. See O'Brien, S.J.Kent, G.T. See Dingle, J.T.

Kent. N. L., and McCance, R. A., absorption and excretion of minor elements by man. I. Silver, gold, lithium, boron, and vanadium. II. Cobalt, nickel, tin, and manganese, III, 902, 1043.

Kenty, C., rugged quartz membrane manometers of small volume, 1, 180.

Kenyon, F., and Macy, I. G., hourly physiologic variations in peripheral hemoglobin, red and white cell counts of women: effect of pregnancy on blood counts, III, 161.

Kenyon, H. R., crymotherapy; urologic aspects, III, 531.

Kenyon, J., and Young, D. P., composition of Ponndorff-Mcerwein reduction product of mesityl oxide, II, 33. Retention of asymmetry during Curtius and Beekmann change, II, 219. See also Balfe, M. P.

Keogh, E.  $\overline{V}$ . See Christie, R.

Kepler, E. J., Nichols, D. R., and Mills, J. H., diagnostic value of regression of secondary sexual characteristics in cases of hæmochromatosis, III, 439. See also  $\mathbf{Hampton}$ , H.P., and  $\mathbf{Waisman}$ , M.

Keppie, J. See Robertson, M.
Kerby, C. E., prevention of blindness program, III, 500.

Keresztnri, C., imperforate hymen causing hydrocolpos, hydroureter, and hydronephrosis, III, 719.

Kerley, C. G., varying manifestations of thyroid gland dysfunction in infants, children, and adolescents, III, 867.

and Lorenze, E. J., nutritional obesity in children, III, 1031.

Kerlinger, H. See Lingane, J. J.

Kerly, M., effect of estrone on metabolism of rat uterus, III, 100.

Kermack, W. O., and M'Kendrick, A. G., design and interpretation of experiments based on a fourfold table, III, 619.

Kern, R. A. See Langner, P. H., jun. Kernkamp, H. C. H., reticulo-endothelial system and immunity in hog cholera, III, 832.

Kernohan, J. See Montgomery, H. Kernohan, J. W. See Moersch, F. P. Kerns, J.K. See Bach, A.C.

Kerpel-Fronius, E., fluid-treatment in dehydration, III, 370. and Fekete, A., effect of water deficiency on glucose absorption, III, 362.

Kerr, D. E. See Dolman, C. É. Kerr, G. P. See Taylor, A. H.

Kerr, R. W., relative reducing potentials of

starch, I, 49.

Kerr, S. E., preparation of adenosine triphosphate, 11, 270. Preparation of muscle adenylic acid, II, 271.

[with Seraidarian, K.], phosphorus compounds of brain. II. Adenosine triphosphate, III, 743.

Kerr, T., histogenesis of teleost pituitaries, III, 3.

Kerr, W. E. See Goodwin, J. E. Kerr, W. H., Danley, R. C., Gaukel, L. A., Wolpert, P. L., Pucilek, L. S., and Cline, E., prevention of ivy poisoning, III, 812. Kershbaum, A. See Bellet, S.

Kerst, D. IV., acceleration of electrons by magnetic induction, I, 140, 358. and Serber, R., electronic orbits in in-

duction accelerator, I, 358. Kertesz, Z. I., pectic enzymes. V. Fate of pectins in the animal body, III, 106.

Walker, M. S., and McCay, C. M. effect of feeding apple sauce on induced diarrhea in rats, III, 881. Kessel, J. F., and Stimpert, F. D., attempts to transmit poliomyelitis virus to rodents, III, 312.

Kesselman, J. See Anderson, Ernest. Kessler, E., cataract, III, 864.

Kessler, M., and Gellhorn, E., [blood-sugar:] effect of electrically induced convulsions on vago-insulin and sympathetico-adrenal systems, III, 559.

Kesten, H. D. See Meeker, D. R. Kestermann, E., and Vogt, K. E., phago-

cytosis in diabetics, III, 72.

Kesteven, H. L., features in embryonic skull of Platypus, III, 822.

Ketchersid, J. R., sulphapyridine in small animal practice, III, 35.

Ketelaar, J. A. A., and Gorter, E. W., crystal structure of thallous sulphide,

 Tl<sub>2</sub>S, I, 154.
 Hart, W. H. t', Moerel, M., and Polder,
 D., crystal structure of TISc, thallous thallic or thallosic selenide, I, 155.

and Heilmann, E. L., crystal structure of potassium sulphamate, I, 453.

Kettner, H. U., histiolytic action of bile and bile salts, III, 447.

Keuver, R. A., and Stahl, K. H., test for heavy metals in hypophosphorous acid, I, 483.

Key, J. A. See Hench, P. S.
Keyer, N. P., and Neumann, M. B.,
dependence of induction period of acetaldehyde cool flame on composition of the mixture, I, 419. See also Aivazov, B. V.

Keys, M. R., paragenesis in the Hollinger [Porcupine District, Ontario] veins, I,

Khan, A. W. See Chaudri, R. M.

Khan, M. A. R., and Qureshi, M., chloro-phyll. III. Cataphoresis and electolytic coagulation of colloidal chlorophyll, I,

Khan, N. U., diet of anxmic women, III,

and Minn, M., capillary fragility and vitamin-C in children, III, 653. Khanna, N. N. See Gupta, H. L.

Kharasch, M. S., and Eberly, K., reactions

of atoms and free radicals in solution. III. Introduction of a thiol group into cyclohexane, II, 132. Kane, S. S., and Brown, H. C., reactions

of atoms and free radicals in solution. II. Non-isomerisation of free alkyl radicals in solution, II, 117. See also Brown, H.C.

Khastgir, S. R., and Choudhury, C., dielectric constant of an electronic medium at medium radio-frequency, I, Dielectric constants of ionised gases at medium radio-frequency, I, 448.

Khoo, F. Y. See Wang, C. Y.

Khosla, B. D. See Bhatnagar, S. S.
Khouvine, Y., Ephrussi, B., and Chevais,
S., development of eye colours in Drosophila, III, 955.

Kibler, C.J. See Couper, M. Kick, C.H. See Hunt, C.H.Kidani, Y., effect of lattice strain on re-

flectivity of silver, I, 455.

Kidd, J. G. See Friedewald, W. F. Kidery, J. See Vavra, R.

Kiehl, S. J. See Lanford, O. E. Kiely, W. F. See Gellhorn, E. Kienle, R. H., and Petke, F. E., polyhydrio

alcohol-polybasic acid reaction. Glyceryl adipate and sebacate polyesters, II, 118.

See also Crossley, M. L.

Kierland, R. B., specificity of stroptococci isolated from nasopharynx of patients with psoriasis, III, 230.

Kikoin, A. K., and Lasarev, B. G., properties of films of helium II, 374.

Kikuchi, A. See Maki, T.

Kikuchi, K., double scattering of highspeed electrons by a gold and an aluminium target; magnetic spectra of doubly scattered electrons, I, 66.

Kikuchi, S., and Aoki, Hiroo, neutro-

electric effect, I, 93.

Kikuta, K., blood [cell] picture in typhus, III, 491. Scrum-protein in typhus, III, 492. Therapy of typhus, III, 618. Felix-Weil reaction in typhus, III, 631.

Kilduffe, R. A., sulphapyridine therapy,

III, 607.

Kilmer, G. W. See Fieser, L. F. Kiloh, G. A., mercury poisoning, III, 916.

Kilpatrick, E. M. See Kirk, R. C.

Kilpatrick, M., and Mears, W. H., acid-base equilibria in ethyl alcohol, I, 263. Acid-base equilibria in methyl alcohol, I, 263.

See also Elliott, J. H.

Kilvington, B., distribution of myelinated nerve fibres within nerve bundles, III,

Kim, K. W. See Kawaguchi, R.

Kimata, S., Aomi, N., and Gotô, Rempei, explosive reactions of gases. I. Explosion limits of oxygen-hydrogen mixtures, I, 472.

Kimball, E. H. See Atkinson, E. R.

Kimball, G. E., and Glassner, A., rate of solution of metals in acids as a function of overvoltage. I. Diffusion potential. II. Solution of cadmium in sulphuric acid, I, 16.

Glasstone, S., and Glassner, A., overvoltage and the structure of the electrical double layer at a hydrogen

electrode, I, 170.

Kimball, W. P. See Cohen, M.

Kimble, M.S., control of wet ashing process for determination of serum-sodium by

uranyl zinc acetate method, III, 838. Kimm, H. T., and Wu, S. D., bilateral adrenal cortical careinoma, III, 681.

Kimmel, D. L., differentiation of bulbar motor nuclei and coincident development of associated root fibres in rabbit, III, 66.

Kimoto, T. See Morikawa, K. Kimura, K. See Nishina, Y.

Kimura, O. See Negishi, R.

Kimura, S., aleukæmic myelosis and aplastic anamia, III, 417. Action of vitamin-B<sub>1</sub> on relation between Arakawa reaction and thrombocyte count. I. and II., III, 420.

Hiraga, S., and Kumagai, K., five cases of acute myelosis in childhood, III,

\_\_\_\_\_\_, n., nuopathic panmyelophthisis with hyperplastic marrow, III, 834. and Kumagai, K., idiopathic panmyelo-

Kimura, Yukio. See Tsuzuki, Y.

Kimura, Yushiro, Japanese Alpinia group. VII. Constitution of alpinetin, a constituent of the seeds of A. chinensis, II, 145.

Kinard, F. W., and Erve, J. van de, toxicity of orally-ingested tungsten compounds

in the rat, III, 789.

Kindsvatter, V. H., acute and chronic toxicity of triethanolamine, III, 131.

Kinell, J. See Ernstene, A. C., and Thomas, J. W.

King, A., stability of oil-in-water emulsions, Í. 208.

and Wrzeszinski, G. W., stabilisation of emulsions, I, 40.

King, C. E., and Benz, E. W., measuring and recording continuously  $p_{\rm H}$  of circulating blood, III, 166.

King, C. G., chemical determination of vitamin-C, III, 599.

See also Harrer, C. J., and Kastlin, G.J.

King, C. V. See Roehl, E. J.

King, E. J., colorimetric standards for determination of blood constituents, III, 246.

and Aitken, R. S., intravenous galactosetolerance test [in liver disease], III, 272. and Belt, T. H., silica content of tissues, with and without silicotic lesions, III,

galactose-tolerance testin liver necrosis, III, 272. Harrison, C. V., and Delory, G. E.,

Pillai, S. S., and Beall, D., preservation of blood for sugar analysis, III, 419.

See also Belt, T. H., and Nagelschmidt, G. King, E. S., and Chastain, L. L., simple and inexpensive micro-titration apparatus, especially useful for titrating culture media, III, 800.

and Lucas, M., sulphapyridine in experimental brucellosis, III, 291. Blood cells of normal guinea-pigs, III,

King, E. S. J., synovial membrane in Charcot's joint, III, 949.
King, F. E. See Dewar, M. J. S.

King, F. H., and Leslie, A., oxygen saturation of arterial blood in jaundice complicating lobar pneumonia, III, 848.

King, G. B., and Hooper, J. F., solubility in water of barium, calcium, and magnesium salts of sulphamic acid, I, 373.

King, G. W. See Harris, L.

King, H., 2-acetyl-I-methylpyrrolidine, II, 234. and Ware, L. L., alkaloids of Bulgarian

belladonna root, II, 234.

King, H. D. See Castle, W. E. King, J. A. See Smith, L. I.

King, J. B., calcification of costal cartilages.

III, 1.

King, J. D., nicotinic acid in Vincent's disease, III, 26. King, J. F., and Fall, P. H., radioactivity

and periodic table, I, 93. King, L. D. P., and Elliott, D. R., short-lived radioactivities of <sup>27</sup><sub>14</sub>Si, <sup>31</sup><sub>16</sub>S, and

35A, I, 143.

See also Elliott, D. R. King, L. E., and Robinson, (Sir) R., synthesis of substances related to sterols. XXXV. Furfurylideneacetone as a reagent for extension of ring systems, II, 324.

King, L. F., and Franks, W. R., conjugation of estrogens with proteins. I., II, 369. King, L. P., Hou, Y. C., and Li, T. P.,

physiological action of Acanthopanax spinosum and Periploca sepium, III, 618. King, L. S., experimental encephalitis; infection with neurotropic viruses, III,

631. King, R. A., fluids in surgical shock, III, 246.

King, R. B., and Stockbarger, D. C., absolute f-values by total absorption,

King, R. E., benzyl benzoate for scabies, III, 294.

King, R. L., and Beams, H. W., effects of mechanical agitation on Paramecium caudatum, III, 489.

See also Beams, H. W.

King, T. E., biological values of proteins in watermelon and pumpkin seeds, III, 592. King, W. H., standardisation of sulphuric acid, I, 218.
King, W. L. M., and Moersch, H. J.,

evaluation of combined effects of sulphapyridine and barbiturates in the treatment of pneumonia, III, 611.

King, W. W., papillary ridges of Chinese hand, III, 545.

Kingsbury, A. W. G., mineral localities on Mendip Hills, Somerset, I, 489.

Kingsbury, B. F., development of pharyngeal derivatives of opossum (Didelphys virginiana), with special reference to thymus, III, 66. Interpretation of thymus bodies, III, 754.

Kingsley, G. R., and Freed, H., effects of insulin and metrazol therapy on cerebrospinal fluid proteins, III, 666.

Kinkel, H., and Kinkel-Diercks, G., vegetative regulation of red-cell count, IIĬ, 552.

Kinkel-Diereks, G. See Kinkel, H. Kinney, C. R., calculation of b.p. of

aromatic hydrocarbons, I, 369. Kinney, P. W., measurement of flow properties with Gardner mobilometer, I, 283. See also Bingham, E. C.

Kinney, T. D., and Maher, M. M., dermato-

myositis, III, 427. Kinsman, G. M. See Donelson, E. G.

Kinsman, J. M., and Moore, J. W., comparison of sulphapyridine and sulphathiazole in treatment of pneumonia, III, 904.

Moore, J. W., and Harrison, M. M., absorption and excretion of sulphapyridine, III, 36.

Kip, C. E. See Gilliland, E. R. Kiplinger, C. C. See Yaussy, A. Kipness, S. See Roehl, E. J.

Kiprianov, A. I., and Petrunkin, V. E., hydroxystyryl derivatives of quaternary heterocyclic salts, II, 78. Influence of solvent on colour of organic dye solutions, II, 78. Absorption spectra of cyanine dyes in the ultra-violet, II, 78.

Kirby, A. H. M. See Chalmers, J. G. Kirby, R. H. See Gilman, H.

Kirby-Smith, H. See Ellis, F. A.
Kircher, T. See Williams, R.
Kirchner, M. T. See Cotler, H. Y.

Kireev, V., vapour pressure and vapour composition in liquid mixtures, I, 300. Change of entropy and of free energy in formation of liquid mixtures, I, 300. Theory of azeotropic mixtures, I, 406. Composition of vapours of equimolecular mixtures, I, 415, 468.

Kirenski, L. V. See Akulov, N. S. Kirillov, V. G., biochemical changes in hæmatogen on storage, III, 111.

Kirimlidis, S. D., anæmia neonatorum, III, 416.

Kiritschenko, E. I. See Plotnikov, V. A. Kirjakka, P., preparation of derivatives of isopropylbenzene and of 7:7'-dichloro-

4:4'-disopropylthioindigotin, II, 270. Kirjanova, E. See Kizel, A. Kirk, M. M., polarographic determination of ascorbic acid, II, 387.

Kirk, P. L., and Tompkins, P. C., micro- and drop-scale titrations of oxalate, II, 236. See also Cunningham, B., Inouye, K., and Sisco, R. C.

Kirk, P. M., Spoerri, P. E., and Gardner, W. H., nature and constitution of shellac. XV. Shellolic acid and similar shellac. acids, II, 265.

Kirk, R., and Sati, M. H., punctate rash in treated cases of leishmaniasis in Anglo-Egyptian Sudan, III, 215.

Kirk, R. C., and Kilpatrick, E. M., ventricular paroxysmal tachycardia from adrenaline in coronary occlusions, III, 754.

Kirkham, D., and Perlmntter, M., fatal aplastic anæmia following use of mapharsen, III, 1054.

Kirklin, B. R., and Weber, H. M. Roentgenologic diagnosis of diseases of small intestine, III, 271.

Kirklin, O. L., Plummer, W. A., and Sheard, C., skin temperatures of extremities in exophthalmic goitre, III, 336.

Kirkpatrick, P., X-ray diffraction maxima at other than Bragg angles, I, 245.

Kirkwood, J. G., structure of molecules and aggregates of molecules, I, 101. and Fuoss, R. M., anomalous dispersion

and dielectric loss in polar polymerides, I, 261.

and Monroe, (Miss) E., theory of fusion, I, 35. Statistical mechanics of fusion, I, 400.

See also Fuoss, R. M., and Roberts,

Kirsanov, A. V. See Bistritzkaja, M. G. Kirsanova, V. A. See Trufanov, A. V.

Kirschbaum, A., and Pfeiffer, C. A., deposition of melanin in sparrow bill following local action of testosterone propionate in alcoholic solution, III, 871.

Strong, L. C., and Gardner, W. U., influence of methylcholanthrene on age incidence of leukæmia in mice, III, 553.

See also Pfeiffer, C. A.

Kirschbaum, E., and Gerstner, F., equilibrium curves and boiling and condensation lines of ethyl alcohol-water mixtures under reduced pressures, I,

Kirschbaum, J. D. See Montgomery, M. M.

Kirsner, J. B., effect of various antacids on  $p_{\rm H}$  of gastric contents, III, 678. Effect of aluminium hydroxide on acid-base balance and renal function, III, 916. Effect of prolonged administration of large quantities of sodium bicarbonate on kidney of dog, III,

and Knowlton, K., acid-base balance, renal function, and gastric secretion during hypochloræmia in dog, III, 1013.

See also Palmer, W.L.

Kirstein, M. B. See Somogyi, M.

Kisch,  $\hat{B}$ . See Nahum,  $\hat{L}$ .  $\hat{H}$ .

Kishida, S., salt effects on antigenic components of Vi form of B. typhosus; action of calcium\_chloride, III, 933.

Kisljakova, E. N. See Babitsch, M. M. Kisseleva, V. V., and Kargin, V. A., surface of colloidal particles in titanium dioxide sols, I, 82.

Kissileff, A., artificial insemination of dairy cattle in private practice, III, 13. Kissin, B., and Locks, M. O., urinary citrates in calcium urolithiasis, III, 770.

Kissinger, L. W. See Sprague, J. M. Kistiakovski, V. A., generalised rule for chemical and electrochemical reactions, I, 277.

Kistiakowsky, G. B., Lacher, J. R., and Ransom, W. W., low-temperature gaseous heat capacities of Ca hydrocarbons, I, 78.

See also Boyd, W. C., Conn, J. B., and Cramer, R. D. Kistler, M. See Moore, F. J.

Kita, T. See Katsurai, T.

Kitahara, K., classification of lactic acid bacteria, III, 50. Lactic acid bacteria from mashes of various kinds of cereals, III, 50.

See also Katagiri, H.
Kitamura, R., constitution of antipyrine and related compounds. V. and VI., IX. and X., II, 304, 335. Interaction of organic sulphur compounds with hydrogen peroxide. XXII. Desulphurisation of thiopyrine by hydrogen perox-

ide, II, 335. and Ono, T., interaction of organic sulphur compounds with hydrogen peroxide. XXI. Desulphurisation of thiopyrine by hydrogen peroxide, II, 334.

and Sunagawa, G., constitution of antipyrine and related compounds. XI., II, 335.

Kitasawa, T. See Uyei, N. Kitavin, G. S., isolation of crystalline riboflavin by action of mercury salts on Aspergillus niger, III, 389. Effect of mercury salts on formation of acid and lactoflavin by Aspergillus niger, III, 624.

Kituti, Y., and Yoshida, T., behaviour of time-difference and phase-difference in the binaural effect, III, 751.

Kitzmiller, K. L. See Deichmann, W. Kiutschi, S., relation between functional state of capillary and its permeability, III, 976.

Kizel, A., and Evreinova, T., importance of free hydroxyl groups of proteins for attack by tryptic enzymes, III, 623. and Jurkevitsch, V., isoelectric points of

acetylated and deaminated cucurbitin, III, 921.

and Kirjanova, E., humin formation during protein hydrolysis, III, 948.

and Roganova, O. P., action of trypsin on modified proteins, III, 137. Kjellberg, K. See Gedda, E.

Klaas, H. Sec MacMasters, M. M.

Kladienko, D. P., variations in water, fat, and protein content of tissues of fish (Leuciscus idus) with advancing age, III, 203.

Klages, F., transplantation of adrenal tissue into kidney, III, 95.

Klar, E., properties and occurrence of an abortifacient protein, III, 619.

Klassen, K. P., Bierbaum, R. L., and Curtis, G. M., comparative iodine content of whole blood and serum, III, 168.

Klatt, T., Rusch, H. P., Dirksen, A., and Meloche, V. W., diagnosis of cancer by means of dropping mercury electrode, III, 516.

Klauer, H., detection of methyl alcohol poisoning, III, 382.

Kleczkowski, A., quantitative studies on serological reactions of plant viruses and of pea nodule bacterium (Rhizobium leguminosarum), III, 809.

Kleeman, I. See Frant, S.

Kleene, R. D., p-bromophenylcyclopentane, II, 5. 4-cycloHexylbenzophenone and its oxime, II, 67. 1-a-Naphthylcyclopentanol, II, 132. 1-Phenylcycloheptanol, II, 250.

Kleene, R. D., and Fried, S., derivatives of furfuryl and tetrahydrofurfuryl alco-hols, II, 74. Derivatives of tetrahydrofurfuryl alcohol, II, 266.

Westheimer, F. H., and Wheland, G. W., dissociation constants in the cinnamic acid series, I, 264.

See also Fried, S.

Kleiber, E. E., sulphapyridine + heparin in subacute bacterial endocarditis. 111,

Kleiber, M., Boelter, M. D. D., and Greenberg, D. M., fasting catabolism and food utilisation of magnesium-deficient rats, III, 902.

and Smith, A. H., eating habit and fasting metabolism of rats, III, 288. See also Young, M. B.

Kleibs, G. A. See Plotnikov, V. A., and Skobetz, E. M.

Kleiderer, E. C. See Van Arendonk, A. M. Klein, A. J., and Palmer, W. C., experimental gastric carcinoma: criteria of induced malignancy, III, 591. Klein, B., oxidation of acyloins, II, 257.

See also Jacobi, M.

Klein, D., determination of pyruvic acid in blood in presence of acetoacetic acid, 111, 333.

Klein, II., and Palmer, C. E., dental caries. IX., III, 18.
Klein, I. F. See Kohn, J. L.

Klein, J. R., and Handler, P., specificity of d-amino-acid oxidase, III, 702.

and Kamin, H., inhibition of d-aminoacid oxidase by benzoic acid, III, 533. and Kohn, II. I., synthesis of flavinadenine dinucleotide from riboflavin by human blood cells in vitro and in vivo, III, 117.

See also Bernheim, F., and Handler, P. Klein, M. D. See Abarbanel, A. R.

Klein, R. I., Levinson, S. A., and Stulik, C. K., formol-gel test during rheumatic fever of childhood; comparison with sedimentation rate and Weltmann reaction, III, 557. Klein, S. See Rapaport, H. G.

Kleinberg, S., traumatic myositis ossificans, III, 86.

Kleinenberg, H. E., Neufach, S. A., and Shabad, L. M., endogenic blastogenic substances, III, 111.

Kleiner, I. S., colour reaction for phenolic steroids (naturally occurring cestrogens), II, 197.

Kleinholz, L. H., moulting and calcium deposition in decapod crustaceans, III,  $10\hat{4}2.$ 

Kleinman, A. See Lightbody, H. D. Kleinzeller, A., formation of succinic acid in yeast, III, 624.

Klement, O. See De Diesbach, H.

Klemm, E. See Dirr, K.

Klemm, O., and Meyer, K. H., apparatus for Van Slyke determination of aminonitrogen in solid substances, II, 79.

See also Meyer, K. H.

Klemperer, F. W. See Conant, J. B.,
Jandorf, B. J., and Solomon, A. K.

Klemperer, P., Penner, A., and Bernheim, A. I., gastro-intestinal manifestations of shock, III, 200.

See also Friedman, B.

Klempner, E. See Frank, R. T., and

Hollander, F.
Klendshoj, N. C., and Hubbard, R. S., determination of sugar in 0.02 c.c. of blood, III, 7.

See also Witebsky, E.

Klepser, R. G. See Veal, J. R.

Klieneberger, E. See Partridge, S. M.

Kligler, I.J., and Bernkopf, H., cultivation and antigenic characters of rabies virus, III, 477.

and Grossowicz, N., function of nicotinic acid in metabolism of colon-typhoid group of bacteria, III, 143.

See also Bernkopf, H., and Mer, G. Klima, R., anamia, III, 70.

Klimov, A. I. See Bunin, S. M. Klinck, G. H., jun. See Wright, A. W.

Kline, B. E. See Rusch, H. P.

Kline, B. S., purification of antigen for microscopic slide precipitation test for syphilis, III, 311.

Young, A. M., and Straus, R., false diverticulum formation following acute perforative appendicitis, III, 363.

Kline, O. L., Hall, W. L., and Morgan, J. F., rat-growth method for assay of vitamin-B1; sulphite treatment of dietary constituents, III, 456.

Klinefelter, H. F., sulphadiazine: effect on E. coli infections in mice, III, 1045.

Kling, A., Samssonow, N., and Heros, M., light oils of coal tar as ætiologic factor of primary pulmonary cancer, III, 113. Kling, S. K. See Kaufman, P. Klinghoffer, K. A., distribution of glucose

between cells and serum; high concentrations of glucose, III, 167. Sec alco Lavietes, P. II.

Klingman, W. O. See Ferrebee, J. W. Kliutschareva, M. M. See Koperina, A. V.

Kljatschko-Gurvitseh, L. L., and Kobosev, N. I., theory of formation of catalytically active ensembles on surfaces. III. Catalytic properties of iron on charcoal and asbestos supports used for ammonia synthesis, I, 477.

See also Kobosev, N. I.

Klobusitzky, D. von, identification of un-

known snake venoms, III, 383.

Kloetzel, M. C., polymethyl aromatic hydrocarbons. II. Dehydration and cyclisation of ε-phenyl-β-methyl-n-brane β-dial II 100 hexane- $\beta\epsilon$ -diol, II, 90.

Klooster, H. S. van, illustrations of reactions between solids, 1, 56.

Klopp, C. T., reactions of partly denervated smooth muscle to adrenaline and sympathin, III, 745.

Klose, A.A., and Almquist, H.J., methionine in diet of the chick, III, 517. See also Almquist, H.J.

Klosterman, J. A. See Neuwirth, I. Klotschko, M. A., conductivity isotherms of binary liquid systems, I, 268.

Klotz, M., hyperplastic periostitis of unknown origin (? fluorine poisoning) in suckling, 111, 2. Hepatic rickets, III, 364. Parenteral use of antirachitic vitamins, III, 376.

Kluchesky, E. F. See Kozelka, F. L.

King, H. See Arnold, R. T. Klug, H. P., accurate measurement of X-ray diffraction films, I, 130. Crystal chemical studies of alums. II. Purple chrome alums, I, 196. Beryllium windows for X-ray tubes, I, 283.

and Alexander, L., crystal chemical studies of alums. III. Solid solution

studies, I, 196.

Knaggs, I. E., and Lonsdale, K., structure of melamine, C<sub>3</sub>N<sub>6</sub>H<sub>6</sub>, I, 196.

Knapp, A., epileptic dream-states, III, 991. Knapp, P. See Demolle, V. Knauer, H., caloric requirements

premature infants, III, 370. 4—A

Knauf, A. E., Hann, R. M., and Hudson. C. S., D-mannosan  $<1,5>\beta<1,6>$  or l-mannosan, II, 242.

Kneen, E., and Blish, M. J., carbohydrate metabolism and winter hardiness of wheat, 111, 815.

Knehr, C. A. See Horvath, S. M.

Kniaginitschev, M. I., viscosity of starches of various sorts in sodium salicylate, I, 83.

Mutul, I. F., and Palilova, J. K., activity of carbohydrase in ripe grains of various types of wheat, Ill, 711.

and Palilova, J. K., activity and quality  $(Q_{10} \text{ and } \mu)$  of catalase in wheats, barleys, and genera related to wheat, III, 712.

Kniazuk, M. See Flexner, J. Knies, P. T., and Le Fever, H. E., metabolic craniopathy: hyperostosis frontalis

interna, III, 951. Knight, B. C. J. G., cultivation of anaërobic bacteria, III, 625.

See also Kekwick, R. A., and Macfarlane,

Knighton, H. T. See Gordon, H.

Knipp, J., and Teller, E., energy loss of

heavy ions, I, 285.

Knischenko, P. G. See Goldstein, B. I.

Knodt, C. B. See Shaw, J. C.

Knoll, A., and Baker, D. L., nature of adsorption of fatty acids from organic solvents by inorganic lead compounds, I, 297.

Knoll, A. F., ineffectiveness of histaminase in anaphylactic shock in guinea-pigs, III. 936.

and Beinhauer, L. G., experimental and clinical observations with histaminase, III, 232.

See also Beinhauer, L. G.

Knoll, H., blood preservation, III, 162. Knopfmacher, H. P., and Salle, A. J.,

lactase of Escherichia coli, III, 388. Knorozova, G. V. See Einhorn, G. L.

Knorr, H. V., and Albers, V. M., spectroscopic studies of simpler porphyrins. II. Absorption spectra of porphin and isoporphin, ms-tetravanillin- and -tetravanilliniso-, -tetrapropyl- and -tetra-propyliso-, -tetra-n- and -tetraisobutyl-porphin, I, 238.

Sec also Albers, V. M. Knott, E. M., determination of vitamin-B. requirement of infants by means of urinary exerction of thiamin, III, 374.

See also Schlutz, F. W.

Knott, G., Schulman, J. H., and Wells, A. F., structure of multilayers. I., I, 110.

Knouff, R. A., Brown, J. B., and Schneider, B. M., chemistry and histology of adrenal lipins. I. Effect of extreme muscular activity on adrenal lipins of guinea-pig, III, 321.

Knowlton, K. See Kirsner, J. B.

Knox, C. W. See Quinn, J. P. Knox, J. A. C. See Bell, G. H.

Knox, W. E. See Green, D. E.

Knudsen, L. F., and Tolle, C. D., statistical analysis of A.O.A.C. collaborative assay of vitamin-D by the chick method, III, 457.

See also Loy, H. W., jun.

Knudsen, V. O., and Fricke, E., absorption of sound in CO2, N2O, COS, and CS2, containing added impurities, I, 34, 368.

See also Watson, N. A.

Knudson, A., and Floody, R. J., fat as a factor in healing of rickets with vitamin-D,

Knudson, H. W., Meloche, V. W., and Juday, C., colorimetric analysis of a twocomponent colour system, I, 130.

Knuniantz, I. L., and Benevolenskaja, Z. V., synthesis of acridine antimalarials, 11, 303.

and Katrenko, D. A., thioacyl derivatives of 2-aminopyridine, II, 303.

Kny-Jones, F. G., electrolytic determination and separation of bismuth. III. Determination and separation from copper in alkaline solution, I, 177.

Ko, H., action of vitamin- $B_1$  on isolated frog's heart, III, 127.

Ko, K., pharmacological actions of quinine alkaloids and their hydrogenated derivatives, III, 37.

Ko, S., pharmacology of reduced glutathione, III, 133.

Ko, T. R., sensibility of excised uterus of opium-poisoned rabbits, III, 581. Influence of chronic opium poisoning on female genital organs, III, 699.

Kobayashi, C., determination of vitamin-C and its distribution in nature, III, 456. Reduced vitamin-C content of viscera of healthy and scorbutic guinea-pigs, III, 521.

See also Yasui, S.

Kobayashi, E. See Ochiai, E.

Kobayashi, Kinhei, and Mizushina, M., catalytic action of Japanese acid clays on mixtures of aniline and methyl alcohol vapours, 11, 38.

Kobayashi, Kozi. See Yamasaki, H. Kobayashi, M., gravimetric analysis by

means of thermo-balance, I, 131.

Kobayashi, R., typing of human hæmolytic streptococci and their relation to diseases and distribution on mucous membranes, III, 310.

See also Ogawa, M. Kobe, K. A., and Markov, T. S., preparation of ammonium hydroxide for laboratory use, I, 217. See also Markham, A. E.

Kobeko, P. P., crystal conductivity and relaxation conductivity of amorphous bodies, I, 213.

Kobilin, A. A. See Mereshinski, M. F.

Kobjakova, A. See Sisakjan, N.

Kobljanski, A. G., alcohol error of indicators; behaviour of acid-base indicators in the system water-alcohol-ammonium

sulphate, I, 336.

Kobosev, N. I., theory of formation of

catalytically active ensembles on
surfaces. IV. Application of theory to catalyst-poisoning, I, 303.

See also Konovalova, B. A.

Kobozieff, N., and Pomriaskinsky-Kobozieff, N. A., genetic constitution of mice of strain XXIX reproducing without segregation, III, 239.

Koch, C. See Schreiber, G. Koch, F. C. See Coffman, J. R., Evans, J. S., and Hoskins, W. H.

Koch, H. See Heilmeyer, L.

Koch, J. R., and Duellman, M. D., determination of digestibility of fats with pancreatic or other lipases, III, 683.

Koch, L. A., projectile vomiting and intoxication in newborn infant, III, 200.

IV., malformation of vascular Koch, system as cause of attacks of asphyxia, III, 719.

Kochakian, C. D., rate of absorption and effects of testosterone propionate pellets on mice, III, 443.

Kochendörfer, A., line broadening by lattice distortions of cosine form, I, 153.

See also Dehlinger, U.

Kochi, M., influence of glucosides on streptococcus and other micro-organisms, III, 53.

Kodama, S. See Igarasi, I., and Matsumura, S.

Kodama, T. See Sato, S. Kodani, M. See Calvin, M.

Kodera, K., effect of breathing oxygen and of air rich in carbon dioxide or poor in oxygen on energy level and intermediate carbohydrate metabolism. IV Influence on distribution of lactic acid in plasma and erythrocytes, III, 971.

Kodicek, E., and Wang, Y. L., determination of trigonelline in urine and food-

stuffs, III, 947.

Koebner, A., palmitoyl- and stearoylglycylglycine and -diglycylglycine, II, 355.

and Robinson, (Sir) R., [with Cardwell, H. M. E.], synthesis of substances related to sterols. XXXVI. (continuation of Part XXII), II, 365.

Koehler, A. E., apparatus for constant-rate injections, III, 235.
Windsor, E., and Hill, E., acctone and

acetoacctic acid studies in man, III,

See also Bnrntness, H. I.

Köhler, B., cleidocranial dysostosis in newborn, III, 546.

Koehler, G. D., action of sulphonamide on anthrax, III, 35.

Koehler, H. F. See Hartung, W. H.

Köhler, H. J., action of veritol on blood pressure and pulse rate in man, III, 41. Koehler, J. S., dislocation theory of plastic deformation, I, 456.

Koehring, V., additive effects of radon and neutral-red on Chaos chaos, III, 44.

Köllensperger, F. K., action of cardiazol on nerve-muscle preparations, III, 617. Koelsch, C. F., and Johnson, P. R.,

pyrolysis of aaγ-triphenyl-2a-propene, 11, 355.

and White, R. V., preparation of chloromethylindenes and determination of their reactivities towards sodium iodide, II, 356.

Koenemann, R. H. See Fenn, W. O. König, F., skin temperature of men over 60, III, 17.

Koenig, H. Sec Karrer, P. Koenig, P. See Flagg, J.

Koenigstein, R. See Kraus, A. Koepf, G. F. See Lewis, R. A., and Thorn, G. IV.

Koerner, A. See Seymour, F. I.

Körösy, F., chemistry of atomic nuclei, I, 396. Koester, F., pulmonary tuberculosis and

pregnancy, III, 805.
Köttgen, H. U., congenital absence of

corpus callosum, III, 343.

Koft, E., jun. See Case, F. H.

Kogut, B., Matzner, M.J., and Sobel, A. E., external pancreatic secretion in man, III, 879.

See also Jacobi, M.

Kohl, H., feeding of premature born with raw breast-milk containing gelatin and carbohydrate, III, 370. Insulin-destroying power of blood, III, 438.

Kohler, D. See Troisier, J.

Kohler, G. O. See Randle, S. B.

Kohlstaedt, K. G., and Page, I. H., treatment of pneumococcic pneumonia with sulphapyridine, III, 124.

See also Corcoran, A. C.

Kohman, E. F., and Porter, D. R., solar rays and vitamin-C, III, 711. Kohman, T. P. See Woodward, R. B.

Kohn, H. I. Seo Dann, W. J., and Klein, J. R.

Kohn, J. L., Klein, I. F., and Schwarz, H., treatment of measles with convalescent serum and concentrated adult normal scrum, III, 935.

Kohte, G., influence of parenteral vitamin administration on white cell count, III, 326.

Koizumi. See Kuroya, M.

Koizumi, K. See Nakamiya, Z.

Kojima, K., theory and practice of bactericidal action of various kinds of disinfectants, III, 909.

Kojima, R., relation between exfoliative dermatitis and adrenal cortex, III, 1005. Kojima, T. See Satake, Y.

Kokatnur, V. R., and Jelling, M., iodometric determination of peroxygen in organic compounds, II, 307.

Kokeguchi, K. See Ochiai, E. Kokko, U. P., bactericidal property of monohydric saturated alcohols, III, 306. Kokovichina, K. I. See Broude, L. M.

Kokubo, S., and Hayashi, Takeshi, copper K-absorption spectrum of aluminiumcopper alloys and their improvement, I,

Kolarov, N. See Balarev, D.

Kolb, J.J., and Toennies, G., determination of methionine in mixtures, II, 80. See also Toennies, G.

Kolb, L. C. See Carmichael, E. A., Hesser, F. H., Langworthy, O. R., and Wilkins, R. W.

Kolbenheyer. See Hollo.
Koldaev, B. M., carnosine metabolism in muscle, III, 687.

and Gelman, R. M., glycogenolysis in muscle with lowered glycogen content, III, 690.

Kolesova, M. See Tschescheva, Z.

Koletsky, S., congenital bicuspid pulmonary valves, III, 823.

Kolin, A., an a.c. induction flow meter for measurement of blood flow in intact blood vessels, III, 733.

Koller, F., antipernicious anæmia factor, III, 323. Influence of vitamin-K on blood coagulation, III, 328.

Koller, P. C., genetical and mechanical properties of sex chromosome. VI. Hexacentrus mundus. VII. Apodemus sylvaticus and A. hebridensis, III, 4, 239.

Koller, T., and Schänker, N., use of intravenous anæsthesia ["narconumal"] in gynæcology, III, 787.

Kollmann, A., vitamin-B<sub>2</sub> in nutritional edema of sucklings, III, 284.

Kolloff, H. G., and Hunter, J. II., sulphanilamide compounds. V. Arylidene derivatives of N4-acetyl-N1-p-aminophenylsulphanilamide and N1-p-aminophenyl-sulphanilamide. VI. N4-Acyl-N1-heterocyclic and N1-heterocyclic sulphanilamides, II, 66, 147.

Kollros, J.J., disappearance of balancer in

Amblystoma larvæ, III, 954.

Kolman, E., is it possible to prove or disprove mendelism by mathematical and statistical methods? III, 548. Kolmer, J. A., preservation of human blood, III, 6. Preserved blood "banks" in relation to transfusion in treatment of disease, III, 162.

and Lynch, E. R., prevention of nonspecific and prezone reactions in Wassermann test with sera and spinal fluids by addition of egg-albumin to complement, III, 932.

See also Brown, Herman.

Kolobkova, E. V., temperature coefficients of enzymes during development of chick embryo, III, 720.

Kolomitschenko, M. A. Seo Borshkovski, S, E,

Kolomitzeva, M., stabilisation of sols of iron phosphate by blood serum, I, 41. Ultramicroscopy of blood serum. I., III, 76.

Kolpinksi, V. A. See Fock, V. A.

Kolthoff, I. M., and Barnum, C., reduction of cystine at dropping mercury electrode, I, 216. Anodic reaction and waves of cysteine at dropping mercury electrode and at platinum micro-wire electrode, II, 214.

and Eggertsen, F. T., ageing and coprecipitation. XXXIV. Ageing of freshly precipitated lead chromate, I,

332.

and Langer, A., amperometric titrations. V. Titration of cobalt with a-nitroso-

 $\beta$ -naphthol, I, 281.

and MacNevin, W. M., ageing and coprecipitation. XXXIII. Thermal ageing of imperfect barium sulphate, I, 38.

and Miller, C. S., reduction of oxygen at dropping mercury electrode, I, 270. Anodic waves involving electro-oxidation of mercury at dropping mercury electrode, I, 338.

and Orlemann, E. F., use of dropping mercury electrode as an indicator electrode in poorly poised systems, I, 270. Application of Ilkovic equation to analysis of mixtures of reducible substances with dropping mercury electrode, I, 471.

and Pan, Y. D., amperometric titrations. VI. Titration of sulphate and other anions with lead and reverse titrations,

I, 126.

and Sandell, E. B., quantitative expression for extractability of metals in form of dithizonates from aqueous solutions; equilibrium constant of zinc dithizonate, I, 409. See also Sanders, H. L., and Smith, L. I.

Koltzov, N. K., structure of melanophore, III, 587. Nervous control of melanophores of bony fishes, III, 587. Microscopical morphology of chromatophores of bony fishes, III, 587.

Komandin, A. V., and Tarasenkov, D. N., physico-chemical studies of tungsten oxychloride, I, 344.

See also Tarasenkov,  $D.\ N.$ 

Komarewsky, V. I., and Coley, J. R., catalytic dehydrogenation and condensation of aliphatic alcohols, II, 158. and Stringer, J. T., catalytic dehydration and dehydrogenation of butyl and amyl alcohol, II, 181.

Komarov, S. A., influence of mucoitinsulphuric acid on peptic digestion, III, 137.

Komatsu, T. See Iwasaki, Y. Kominami, Y., and Yasunami, H., use of azo-dyes in bacillary diseases, III, 1048. Komissarova, L. A. See Zeidler, I. I.

Komori, S., preparation of unsaturated higher alcohols. VI. and VII., II, 83, 158.

Kompaneetz, S. M., senile lesions of auditory apparatus, III, 92.
Komschilov, N. F., additivity of molecular

volumes. II. Molecular volumes of paraifin hydrocarbons, I, 29. Sec also Krestinski, V. N.

Kon, G. A. R. See Bilham, P. Kon, S. K. See Braude, R., Gillam, A. E.,

and Henry, K. M.

Konaka, Y., catalytic polymerisation of ethylene at atmospheric pressure. XI. Influence of hydrogen and nitrogen.

XII. Action of acetylene, II, 181. Konanz, E. J. See Burdiek, H. O.

Kondakova, M.S. See Goldfarb, J.L. Kondo, B.O. See Eliases, M.

Kondo, H., and Ohno, S., constituents of "senso." XII. Identification of a pure substance with diurctic action, III, 915.

Suzuki, Kohei, and Satomi, M., alkaloids of Stemona tuberosa, Lourciro. III. Tuberostemonine, II, 341.

Kondorski, E., hysteresis in ferromagnetics, I. 197.

Kondrateev, V., radiation of low-temperature flame of carbon disulphide, 1, 117. Spectroscopic study of intermediate products of oxidation of II<sub>2</sub>, CO, and CS<sub>2</sub>, I, 277. Distribution of CS radical in low-temperature flame of carbon disulphide, I, 473.

and Jakovleva, A., photochemical formation of sulphur monoxide, I, 479. Formation of CS in photodissociation of carbon disulphide and carbonyl

sulphide, I, 480.

and Magaziner, E., properties of free radical CS, I, 397.

See also Jakovleva, A., and Kondrateeva,

Kondrateeva, E., and Kondrateev, V., carbon monoxide-oxygen flame. VII. The OH radical in the flame of moist carbon monoxide, I, 419. Kondritzer, A. A. See Block, R. J.

Konikova, A. S., rôle of non-natural form of glutamic acid in development of

malignant tumours, III, 682.

Konishi, K., Kawamura, A., and Imanishi, A., effects of mineral material on growth of root nodule bacteria, III., III, 50.

Konnikov,  $B.\ I.$  See Balandin,  $A.\ A.$  Konnova,  $R.\ K.$  See Braun,  $A.\ D.$ Kononenko, A. F. See Kozakevitsch,

Konopinski, E. J., and Uhlenbeck, G. E. Fermi theory of  $\beta$ -radioactivity. II. "Forbidden" spectra, I, 438.

See also Dickson, G. R.
Konovalov, P. F. See Toropov, N. A. Konovalova, B. A., and Kobosev, N. I., volume and surface processes in oxidation of nitrogen in glow discharge. III., I,

Konovalova, R. A., and Orekhov, A. P., alkaloids of Aconitum species. I. A. thalassicum, II, 111.

See also Junusov, S.

Konsulov, S., and Gantscheva, N., action of serum as food for growth of inoculated tumours, III, 207.

Kontorova, T. See Frenkel, J.

Konz, P. R., and Brown, G. G., thermal properties of pentane, I, 294. Konzelman, F. See Silverstein, A.

Konzelmann, F. W., evaluation of liver function tests, III, 583.

Koons, K. M., and Ruch, M. K., Wilm's tumour causing hypertension, III, 249.

Kopala, J. See Irvin, J. L. Koperina, A. V., and Kliutschareva, M. M., reduction of amines and substituted amides. II. Kinetics and mechanism of electro-reduction of amides, II, 363.

Kopfler, M. E. See Kennedy, C. B. Kopil, L. D. Seo Juza, V. A.

Koppanyi, J., absolute water and its use, I, 173.

Koppanyi, T., and Cutting, R. A., effect of massive intravenous infusions in narcotic poisoning, III, 790.

and Linegar, C. R., effect on sparteine on autonomic nervous system, III, 910.

Linegar, C. R., and Herwick, R. P., analysis of vasopresser and other "nicotinic" actions of acetylcholine, III, 909.

See also Herwick, R. P.

Koppius, O. T. See Ramsay, B. P.

Koranyi, A., mechanism of albuminuria, III, 109.

Korenberg, M. See Mirsky, I. A. Korenchevsky, V., effects of sex hormones on secondary sex organs of castrated male rats, III, 354. Sex hormones and basophilic granulation of liver cells in rat, III, 723. and Hall, K., correlation between sex

hormones, thyroid hormones, and deoxycorticosterone judged by their effects on weights of organs of gonadectomised rats, III, 752.

Hall, K., Burbank, R. C., and Cohen, J. effect of sex hormones on liver and heart, III, 439.

See also Ross, M. A.

Korenman, I. M., fractional micro-chemical reaction for palladium, I, 282. Fractional detection of aluminium, I, 388.

See also Burschtein, A. I.

Korenschevsky, V. See under Koren-

chevsky, V. Korf, D. M., and Schatrovskaja, L. P., solubility in system Na<sub>2</sub>SO<sub>4</sub> + 2HCl ⇌  $\mathrm{H_2SO_4} + 2\mathrm{NaCl}$ , at 25°, I, 337.

Korff, S. A., fast neutrons and particles with high specific ionisation in cosmic radiation at high elevations, I, 315. Nuclear particles in cosmic radiation, I, 360.

and Clarke, E. T., report of cosmic ray observations made on U.S. Antarctic Expedition in co-operation with Bartol Research Foundation, I, 190.

See also Murphy, E. J., and Rose, M. E. Koritnig, S. See Dolar-Mantuani, L. Korkas, J. See Choremis, K.

Kornberg, H. A. See Hazlet, S. E. Kornblum, N. See Adams, R.

Korndorf, B. A., high-pressure laboratory apparatus, I, 283.

Korneev, See Dolgoplosk, B. A. Kornerup, T. G. See Ahlmark, A.

Korney, K. A., and Serebriani, S. B. utilisation of alcoholates of azidoalcohols for synthesis of azido-derivatives of ethers. I. Alcoholate of azidoethanol and its application for synthesis of azidoderivatives of ethers, II, 214.

Kornfeld, E. C. See Caldwell, W. T. Kornfeld, (Miss) G., photochemical reduction of ferric iron by oxalic acid, I, Kornfeld, M., and Rivkin, M., brittleness of liquids, I, 201.

Kornfeld, P. C., limits of tyndallimetry

in anterior chamber, III, 502. Kornmüller, A. E. See Janzen, R.

Korobkov, G. See Chanin, M. N.

Korolev, A., and Bilik, I., dyes with asymmetric molecules, II, 248.

Korolev, A. J. See Vilenski, V. A. Korolev, V. See Shadanovskaja, K.

Korpássy, B., basal cell metaplasia of pancreatic ducts, III, 1016.

Korschunov, I. A., errors in determination of heat of formation of cuprous sulphide, I, 416. Heat of reaction of sulphur with lead and tin, I, 416. See also Kapustinski, A. F.

Korshinski, D. S., liquid inclusions as cause of imaginary pelitisation of

felspars, I, 229.

Korshuev, A. S., and Borisova, Z. L., influence of  $p_{\rm H}$  of solution on swelling of clay, I, 43. Effect of  $p_{\rm H}$  on sedimentation of clays, I, 46.

Korth, E., tuberculin test of Halliday and

Sutherland, III, 629.

Koseki, G., effect of intravenous serum transfusion on protein content and blood colloid osmotic pressure, III, 837.

Koser, S. A., Chinn, B. D., and Saunders, F., gelatin as a source of growthpromoting substances for bacteria, III, 49.

Saunders, F., Finkle, I. J., and Spoelstra, R. C., bacterial nutrition. II. Distribution of a growth-stimulating factor in animal and plant tissues, III, 139.

See also Dorfman, A., and Saunders, F. Kosheurova, V. A., electric conductivity of thin films of copper sulphide, 1,

See also Mokruschin, S. G.

Koshevnikova, A. N. See Proskuriakov. N. I.

Kositchek, R. J. See Stout, O. M. Kosiakov, K. S., exo- and endo-genous methemoglobin formation, III, 648.

Kosjakov, P. See Stepanov, A. Koskoski, W., Dodson, R. W., and Fowler, R. O., kinetics of bromide-α-bromo-

propionic acid exchange in aqueous solution, I, 474. Thomas, H., and Fowler, R. D., exchange

reaction between chloride ion and tert.-butyl chloride, I, 474.

Kossiakoff, A., and Springall, H. D., structural investigation of Mills-Nixon effect; electron diffraction and structure of 1:3:5-tribromobenzene, o-dibromo-xylene, -hydrindene, and -tetralin, I, 454.

Kossmann, C. E., erymotherapy; cardiovascular aspects, III, 531.

Kossovitch, N. See De la Rivière, R. D. Koster, H., diminution or prevention of peritonitis from leakage after intestinal resection or perforation, III, 271.

See also Kaufmann, J. See Cruickshank, Kosterlitz, H. W. E. W. H.

Kostrov, A. N., effect of 6-acetamidonicotine on respiration, III, 617.

Kostzova, A. G., aliphatic sulphonic acids; synthesis and properties of acylamides of aliphatic sulphonic acids, II, 347.

Kotecki, A., visible fluorescence bands of cadmium vapour, I, 71. Koten, I. A., laboratory synthesis of ethyl

chloride, II, 82.

Koteswaram, P., molecular association in acetone and methyl ethyl ketone, I, 240. Molecular association as studied by the Raman effect, I, 240. Association of acetic acid in non-aqueous solvents, I,

Kothari, D. S., and Singh, B. N., Bose-Einstein statistics and degeneracy, I,

See also Chowdhuri, A. G.

Koton, M. M. [with Votinov, A. P., and Florinski, F. S.], vinylfuran, II, 371.
Kotrelev, V. N. See Losev, T. P.
Kotschetkov, N. K. See Beer, A. A.

Kotukov, A. Z., density of sorbed and bound liquids. I. Density of water bound by starch, I, 38.

Kotz, J., and Parker, E., endometrial patterns in menorrhagia and metror-

rhagia, III, 510.

Koval, T. E. See Fischer, P. Z.

Kovalenko. Sec under Samotoi, M. P.

Kovaleva, L. I. Sec Belenki, M. S. Kovalevskaja, N. P., lyotropic effect of ions on structure formation in ferric hydroxide sols, I, 42.

Kovaliv, P. See Gysin, M.

Kove, S., and Siegel, H., prothrombin in newborn infant, III, 328, 833.

Koyanagi, J., biochemistry of chaulmoogra oil; urinary excretion in rabbits, III, 38.

Kozakevitsch, P. P., and Kononenko, A. F., surface tension in binary and ternary mixtures of oxides, I, 464.

Kozelka, F. L., and Kluchesky, E. F., photo-electric colorimetric technique for dithizone system, I, 431. Determination of lead in biological material; mixed colour dithizone method, III,

See also Hine, C. H., and Tatum, H. J.

Kozin, A. N. See Ismailski, V. A. Kozirev, A. I. See Zaprometov, B. G.

Kozlov, V. V., and Archipov, B. N., diazo-compounds. II. Reaction of diazo-compounds with complex heteropoly-acids, II, 62.

Archipov, B. N., and Simonovskaja, A. V., diazo-compounds. III. Complex diazocompounds of phenylenediamines with heteropoly-acids, and dyes produced therefrom, II, 62.

Fruktova, E. P., and Schemjakina, O. M., series. I. thianthren 2-Sulphothianthren sulphone and 2-chloro-

thianthren sulphone, II, 74.

and Stepanov, B. I., diazo-compounds. IV. Effect of polyhydric alcohols and of certain carbohydrates on tetrazotisation of m-phenylenediamine, II,

See also Voroshcov, N. N.

Kozlova, H. A. See Tschuchrov, F. V. Kozmina, N. P. See Reznitschenko,

Kracek, F. C., m.p. of tellurium, I, 369.

Kracke, R. R., diagnosis and treatment of purpuric diseases, III, 835.

Kraehenbuehl, J. O., functional lighting in college, III, 500.

Kraemer, E. O., determination of average mol. wts. or particle sizes for polydispersed systems, I, 132. State of dispersion of gelatin in concentrated potassium thiocyanate solutions, I, 262.

Krämer, .H., and Schaltenbrand, G., myographic studies in tabes dorsalis and general paralysis of the insane, III,

Kraemer, M., magnesium trisilicate N.N.R.: its position among antacids used to treat peptic ulcer, III, 678.

Krahl, M. E., Keltch, A. K., and Clowes, G. H. A., inhibition of flavoprotein oxidative catalysis by substituted phenols, III, 135. Flavin-dinucleo-

tide in eggs of sea-urchin, Arbacia punctulata, III, 268.

Keltch, A. K., Neubeck, C. E., and Clowes, G. H. A., cell metabolism and cell division. V. Cytochrome oxidase activity in eggs of Arbacia punctulata, III, 1039.

See also Davies, W. W.

Krajian, A. A., frozen section method for preparation of permanent tissue sections, III, 5. Staining Gram-positive organisms in frozen sections, III, 5. Staining fat in frozen sections with osmic acid, III, 242.

Krajuchin, B. V., mechano- and electrograms of muscle, and electrogram of nerve after destruction of spinal cord, III, 177. Influence of sympathetic nervous system on mechano- and electro-gram of striated muscle, III, 851.

and Schtscherbakov, N. M., muscle chronaxie in old age, III, 851.

Krakower, C., and Axtmayer, J. H., effect of a-tocopherol on lesions of skeletal muscles in rats on vitamin-A-deficient diet, III, 252.

Krall, H., and Sagar, V., phenylthio-carbamides; the triad -N-C-S-. IX. Thiobenzamide, II, 13.

Kramár, J. See Blaszó, S.

Kramer, B. See Sobel, A. E. Kramer, F. M., macroscopic staining of anatomical and pathological specimens, III, 155.

Kramer, Milton. See Gold, H. Kramer, Morton. See Finn, S. B. Kramer, M. M. See Saffry, O. B.

Kramer, P. J., causes of decreased absorption of water by plants in poorly aërated media, III, 57.

Kramers, H. A., and Wannier, G. H., statistics of two-dimensional ferro-magnet. I. and II., I, 451. Krampitz, L. O., and Werkman, C. H.,

enzymic decarboxylation of oxaloacetate, 111, 708.

Krantz, H. A., and Hufferd, R. W., highoutput electric flask heater, I, 129.

Krantz, J. C., jun., Carr, C. J., Forman, S. E., and Cone, N., alkyl nitrites. VI. Mechanism of action of organic nitrates, III, 216.

Carr, C. J., Forman, S. E., Evans, W. E., jun., and Wollenweber, H., anæsthetic action of cyclopropyl ethyl ether, III,

Carr. C. J., Forman, S. E., and Harne, W. G., anæsthesia. III. Pharma-

cology of methyl allyl ether, III, 464.
See also Beck, F. F., Bell, F. K., and
Dozois, K. P.

Krantz, K. W. See Amundsen, L. H. Krasnoff, D. See Levaditi, C. Krasnook, N. P., rôle of light in autogenesis

of spring wheat, III, 401.

Krasnovski, A. A., photochemical oxidation of aromatic hydrocarbons, II, 61.

Krasny-Ergen, W., optimal dimensions of a Clusius-Dickel isotope separator, I, Kratky, O., micellar structure of cellulose

and its derivatives, I, 451.

Krauland, W., presence of fibrin in hamorrhages [before and after death], III, 327.

Kraus, A., and Koenigstein, R., pregnancy test of Kapeller-Adler, III, 579.

Kraus, D. L., and Nutting, G. C., absorption spectra of chrome alums at low temperatures, I, 147.

Kraus, E. J., and Hunter, M. P., congenital Bacillus pyocyancus infection, III,

and Mitchell, John W., histological and physiological responses of bean plants to α-naphthylacetamide, III, 402. Kraus, G. See Sobel, A. E.

Kraus, I., and Dulkin, S., determination of hippuric acid in urine, 111, 274.

Kraus, O., and Mussgnug, F., crystal chemistry of hetero-poly-acids; is there an "isomeric borotungstic acid"? I,

Krause, G. R., and Langsam, C. L., vertebral fractures following metrazol therapy, III, 860.

and Scherb, R. F., fracture of both femoral necks and of thoracic vertebræ following metrazol convulsion, 111,

Krause, R. F., and Riley, R. F., reliability of the cobalt-isopropylamine colour reaction for amytal; evaluation of ehromogenic substances in urine, III,

Sec also Riley, R. F. Krauss, B. H. Sec Sideris, C. P.

Krauss, H., case of adenoma of pancreas cured by excision, III, 513.

Krautman, B., deproteinising reagent for blood and cerebrospinal fluid chemistry, III, 649.

Krauze, M. V., and Slobodin, J. M., synthesis of vitamin-A, II, 63.

Kravkov, S. V., colour vision and autonomic nervous system, III, 1000.

Kravtschenko, V. M., thermodynamic calculations for ternary system o., m., and p-xylene, I, 337. Ternary system toluene-m-xylene-naphthalene, I, 415. Kraybill, H. R. See Thornton, M. H.

Krayer, O. See Friend, D. G.

Krebs, A., calcium therapy in eye diseases, III, 746. Toxicity of thorium emanation, III, 1060.

Krebs, E. See Price, C. C.

Krebs, II. A., carbon dioxide assimilation in heterotrophic organisms, III, 457.

and Eggleston, L. V., biological synthesis of oxalacetic acid from pyruvic acid and carbon dioxide. I. and II., III, 123, 709.

Krebs, K. F. See Buswell, A. M.

Krebs, M., convalescent urine for measles, 111, 538.

Kreider, L. C., tests to indicate condition of an analytical balance, I, 179.

Kreidler, W. A. Sec Hansen, L. Kreimer, B. J. See Jaroslav, S. J. Kreindler, A. See Marinesco, G.

Kreisler, O. See Szanto, P. B. Kreke, C. W. See Cook, E. S.

Kremer, C. B. See Meltsner, M.

Krems, A. D., Martin, A. W., and Dille, J. M., experimental study of tolerance to sulphanilamide in the albino rat, 1 III, 527

Kreps, S. I., and Day, A. R., preparation of derivatives of retenoxazole and reteniminazole and study of reaction mechanism. II, 152.

Kreschkov, A. P., preparation of formaldehyde from methane, II, 281.

Krestinski, V. N., Kazeeva, E. V., and Komschilov, N. F., resinic acids of conifers. V. Structure of γ-sapinic acid, II, 370.

and Summ, N. I., action of hypochlorous acid on  $\beta \epsilon$ -dimethyl- $\Delta \gamma$ -hexine- $\beta \epsilon$ -diol, 11, 26.

Kretschmer, C. See Rodebush, W. H. Kretschmer, W., action of calfeine-free coffee, III, 296.

Kretschun, N. B. See Tschapek, M. I'. Kretzmann, R., optical constants of thick metal layers in visible and near infra-red, I, 34.

Kreutzmann, H. A. R., sterility in male, III, 270.

Krewson, C. F., condensation of aminoacids with terpenes. I. Glycine and limonene nitrosochloride, II, 172.

Krichesky, B., and Honig, C. D., toxicity of saline extracts of rabbit uterus after cestrogen administration, III, 580.

and Pollock, W., histamine-like substance in post-partum rabbit uterus, III, 510. See also Sapirstein, L. A.

Krieble, R. H. See Corwin, A. H.

Krieger, C. H., Bunkfeldt, R., and Steenbock, H., cereals and rickets. Availability of phytic acid phosphorus. XI. Calcium phytate as a source of calcium, III, 29.

Bunkfeldt, R., Thompson, C. R., and Steenbock, H., cereals and rickets. XIII. Phytic acid, yeast-nucleic acid, soya-bean phosphatides, and inorganic salts as sources of phosphorus for bone calcification, III, 457.

and Steenbock, H., cereals and rickets. XII. Effect of calcium and vitamin-D on availability of phosphorus, III,

Krieger, P., bornite-klaprotholite relations at Concepcion del Orô, Mexico, I, 62.

Krill, W. R., intravenous medication in

large animal practice, III, 40. Krilov, A. V. See Medox, G. V.

Krishnamurthy, P. V., and Giri, K. V., vitamin-C oxidation. I. Co-existence of oxidising and protective factors in plants for vitamin-C, III, 1037.

See also Giri, K. V.
Krishnan, B. G. See Aykroyd, W. K.
Krishnan, K. G., dispersion of ultrasonic velocity in organic liquids, I, 329.

Krishnan, K. S., magnetic and thermal properties of crystalline copper sulphate at low temperatures, I, 105.

and Banerjee, Santilal, magnetic studies on braunite, 3Mn<sub>2</sub>O<sub>3</sub>,MnSiO<sub>3</sub>, I, 230. Magnetic anisotropy of gadolinium sulphate octahydrate, I, 327.

Chorghade, S. L., and Anantapad-manabhan, T. S., orthorhombic crystalline modification of diphenyloctatetraene, I, 31.

See also Ganguli, N.

Krishnan, R. S., deuteron bombardment of silver, I. 3. Deuteron bombard-

ment of gold, I, 188. and Banks, T. E., disintegration produced by deuterons, I, 360.

and Nahum, E. A., deuteron bombardment of heavy elements. I. Mercury, thallium, and lead, II. Platinum, I, 3, 441.

See also Gant, D. H. T.

Krishnaswamy, B., and Seshadri, T. R., benzopyrone series. III. Synthesis of coumarino- and flavono-a-methyl-7:8-dihydrofurans, II, 202.

Krishnaswamy, H. Sec Murti, P. B. R. Kriss, M., specific dynamic effects of amino-acids: bearing on causes of specific dynamic effects of proteins, III,

Kritschevski, I. R., limited mutual solubility of gases at high pressures, I, 462.

and Bolschakov, P., heterogeneous equilibria in ammonia-nitrogen system at high pressure, I, 415.

and Kalvarskaja, R. S., adsorption of vapours under pressures, I, 410.

and Levtschenko, G. T., compressibility of gas mixtures. II. P-V-T data for binary and ternary mixtures of methane, nitrogen, and hydrogen, I,

and Markov, V. P., compressibility of gas mixtures. I. P-V-T data for binary and ternary mixtures of hydrogen, nitrogen, and carbon dioxide, I, 406.

Kritschevtzov, B. K. See Joffe, J. S. Kritzman, M. G., transamination. XVI. Transamination and vitamin-B, deficiency, III, 684.

See also Braunstein, A. E.

Kriuk, I. F., condensation of ethylaniline with acetylene in presence of HgCl2, II, 333.

Kriukov, A.A. See Gorochovski, J.N.Kriukova, N., synthesis and hydrolysis of sucrose in higher plants under conditions of inhibited phosphorylation, III, 938.

See also Kursanov, A. L.

Krivolapova, E. V., and Kabanev, B. N., corrosion of lead in an oxidising medium,

Kröger, F. A., solid solutions in ternary system ZnS-CdS-MnS, I, 377.

[with Jacobs, F. M.], wurtzite-sphalerite transition of zinc sulphide, I, 353.

Kropp, B., and Baldwin, M., failure of gas gangrene organism to proliferate within nerve bundles, III, 658.

Kroulik, J. T., physiology of Rhizobium meliloti, with reference to effectiveness of strains isolated in Kansas, III, S00.

and Gainey, P. L., relative nodulation of varieties of Medicago sativa varying in susceptibility to lucerne wilt, III. 150.

Krüger, A., volumetric determination of sulphuric acid in its salts, I, 426.

Krueger, A. P., Brown, B. B., and Scribner, E. J., effect of sonic vibrations on phage, phage percursor, and bacterial substrate, III, 1060.

and Pucheu, H., thermal inhibition of phage production in mixture of phage and growing susceptible bacteria, III,

and Scribner, E. J., bacteriophage, III,

Krüger, H. See Widenbauer, F.

Krueger, Hugo, interrelations of pharmacodynamic properties of morphine and its derivatives, III, 915.

Krueger, J. See Marker, R. E. Krüger, W., aplasia of corpus callosum, III,

Kruger, A. L., and Perlberg, H. J., Woldman phenolphthalein test intestinal tuberculosis, III, 1016.

Krumdieck, N. See Furth, J. Krupatkin, I. L. See Mertzlin, R. V. Krnse, H. D., detection of ocular changes in avitaminosis-A, III, 998.

Krusen, F. II., filter for efficient infra-red

radiation, III, 385. Krutschakova, F. A., effect of functional variations of muscles on their sodium, potassium, calcium, and magnesium content, III, 738. Seasonal variations in sodium, potassium, calcium, and magnesium content in animal muscles, III, 738.

Ksanda, C. J. See Fleischer, M.

Kubicek, W. G., Sedgwick, F. P., and Visscher, M. B., adaptation of glass spoon manometer to physiological studies, III, 483.

See also Salzburg, P.

Kubo, H. See Nishina, Y. Kuck, J. A. See Royer, G. L.

Kuder, R. C. See Calingaert, G., and Egloff, G.

Kuehn, A. O. See Ecker, E. E. Kühnel, M. See Steinkopf, W.

Kühnel, P., ectopia cordis in living child, born at term, III, 335.

Kündiger, A., and Sallis, F., vitamin-Cexcretion in urine in diphtheria, III, 27.

Kuenen, P. H., geochemical calculations concerning total mass of sediments in the earth, I, 225.

Künkele, F., distribution of alcohol in the body, III, 223.

Künzel, O. See Keller, C. J. Kürten, H. F., action of phloridzin on, glucose metabolism in kidney, III, 202. Küster, E. See Angerer, K. von.

Küster, F., fat absorption in sucklings, III,

Kuether, C. A., and Smith, A. H., absorption and fate of free citric acid in rat, III, 380.

Kuffler, S. W. See Katz, B.

Kugel, V. H. See Moschowitz, E.

Kugelmass, I. N., vitamin-P in vascular purpura, III, 8. Vitamin-K in hemorrhagic diseases of infants and children, III, 245.

Kuhn, R., Rorschach ink-blot test in psychotic cases, III, 995.

Kuhn, T. H. See Galbraith, F. W. Kuhns, J. G., and Weatherford, H. L., rôle of reticulo-endothelial system in deposition of colloidal and particulate matter in articular cavities, III, 951.

Kuiken, K. A. See Schultze, M. O. Kuitunen-Ekbaum, E., phenothiazine in treatment of enterobiasis, III, 1050.

Kuizenga, M. H., and Cartland, G. corticosterone and its esters, II, 45. Nelson, J. W., and Cartland, G. F., com-

parative parenteral and oral assays of adrenal cortical hormone substances, III, 507.

Kulakov, N. N., and Samarina, K. I., movement of peat mass in open beds, I, 261.

Kulakova, A. P. See Esafov, V. I.

Kulberg, L. M., reaction of aminophenols with copper and iron, II, 95.

and Matenko, E. J., mechanism of formation of Co[Hg(CNS)<sub>4</sub>], I, 345. and Presman, S. E., micro-phenol-

phthalein-formalin method of determining amino-acids in blood, III,

Knlehar, G. V., late, or delayed, reactions to patch tests, III, 633. Elkonite, colloidal clay ointment base, III, 1057.

Kuliev, A. See Mamedaliev, J. G. Kulikov, S. G. See Levina, R. J. Kulkarni, B. R. See Narayan, R. S.

Kulkarni, D. R., Alimchandani, R. L., and Shah, N. M., condensation of a-substituted acctoacetates with phenols. III. Pechmann condensation of ethyl a-(\beta\beta-trichloro-a-hydroxyethyl)acetoacetate. IV. Condensation of cresols and other less reactive phenols with ethyl a-(βββ-trichloro-a-hydroxyethyl)acetoacetate, II, 330.

Kulkarni, K. M. See Limaye, D. B.
Kulkarni, P. Y. See Hirwe, H. W.
Kumagai, K. See Kimura, S.
Kumagai, T., blood-catalase: glutathione

[and oxygen capacity of blood], III, 168. Kumanin, K. G., structure and properties

of glasses from point of view of phase

rule, I, 212.

Kumler, W. D., dipole moments and resonance in tetronic acids, I, 99.

and Halverstadt, I. F., acid strength of bile acids, I, 167. Dipole moment of sulphanilamide and related compounds, I, 448.

See also Halverstadt, I. F.

Kummer, K., Böttner's and Kaufmann's tests of cardiac function in children, III,

Kuna, M., Ovakimian, G., and Levene, P. A., correlation of configurations of a-aminophenylacetic acid and alanine. II, 98.

See also Levene, P. A.

Kuna, S. See Molitor, H.
Kunerth, B. L. See Donelson, E. G., and Saffry, O. B.

Kunitz, M., crystalline ribonucleasc, III,

See also McDonald, M. R.

Kunkel, P. See Brines, J. K.

Kunstadter, R. H., benzedrine sulphate in management of obesity in children, III,

Kuo, C. C., weight gain in normal pregnancy

in Chinese patients, III, 764.

Kuo, P. T., Rottenstein, H., Ho, C. H., and Ho, Y. C., therapeutic sulphapyridine (soludagenan) levels in blood of patients suffering from lobar pneumonia, III, 607.

See also Hwang, M. S., and Morris, H. H. Kuper, J. B. H., Brackett, F. S., and Eicher, M., integrating photo-electric

meter, I, 223.

and Teller, E., scattering of fast electrons in helium, I, 1.

Knpferberg, A. B., pure culture of Tri-

chomonas vaginalis. II. Cell size in relation to  $p_{\rm H}$ , III, 625.

Kupperman, H. S., Elden, W. H., and Meyer, R. K., effect of method of desiccation and storage on gonadotropic activity of pituitary gland, III, 758.

Kurbatov, J. D., evaluation of surface area of catalysts of cubic form by emanation method, I, 341.

See also Allen, J. S. V.

Kurbatov, L. N., photochemical properties of iodine sorbed by thallium iodide, I, 463. Adsorption of iodine vapour by silica aerogel, I, 463.

Kurdjumov, G., and Miretzki, V., transformations in eutectoid copperaluminium alloys. IV. Reversibility of martensite transformation  $\beta_1 \rightarrow \gamma'$ , I,

Kurgatnikov, M. M., structure of starch granules in different types of pea and changes in their properties with age of the seed, III, 943.

Kuriyama, S. Sec Tsukamoto, J.

Kurland, A. A. See Rubinstein, H. S. Kurnakov, N. S., and Nikitina, E. A., equilibria in system NaCl-PtCl<sub>4</sub>-H<sub>2</sub>O, I,

Kurnick, N. B., permeability of human erythrocytes to sodium and potassium, III, 830.

Kuroda, H. See Okuda, T.

Kuroda, K., copper, lead, and zinc content of hot springs of Japan [determination of copper], I, 92. Copper content of hot springs of Yunohanazawa, Hakone, Kanagawa prefecture, and that of hot springs of Osoreyama, Aomori prefecture [determination of copper], Î, 350.

Sce also Oana, S.

Kurono, G. See Kaiyone, T. Kurose, M. See Kuroya, M.

Kurotchkin, T. J., Scheer, J. van der, and Wyckoff, R. W. G., refined hyperimmune rickettsial sera, III, 631.

Kuroya, H., and Tsuchida, R., absorption spectra of co-ordinating compounds. IV. Ethylenediamine cobaltic complexes, I, 72.

Kuroya, M., and Koizumi, toxic substance in bodies of typhoid bacilli, III, 476. and Kurose, M., effect of glucosamine on bacterial growth, III, 475.

Kuroyanagi, S., molecular compounds of sulphanilamide series. I., II, 304.

and Kawai, H., molecular compounds in sulphonamide series. II., II, 339.

Kursanov, A. L., changes in tannins during growth of plants, III, 938. Determination of phloroglucinol in plants, III, 942. Determination of forms of tannin in plants, III, 945.

and Briuschkova, K., reversible action of enzymes in germinating seeds, III, 635. Enzyme action in resting and bursting buds, III, 937. Enzyme activity in ripening wheat, III, 937. Enzymic activity of leaves in different tiers in relation to individual and plant

development, III, 815. and Kriukova, N., enzymie indices of resistance to cold of Cinchona species.

III, 634.

Kurscheva, A. See Chanin, M. N. Kurtschatov, I. V., performance of Radium Institute cyclotron of Academy of Science, U.S.S.R., I, 286. Metastable state of gadolinium nucleus, I, 287.

Kurtsina, Ö. I. See Piekat, A. K. Kurtz, A. C., isolating l(+)-lysine, II, 354. Colour reaction given by a-amino-acids, III, 947.

Kurtz, S. S., jun., and Lipkin, M. R., molecular volume of saturated hydrocarbons, I, 364. Refractive index of paraffins in terms of number and frequency of dispersion electrons, I,

See also Lipkin, M. R.

Kurung, J. M. See Yegian, D.
Kurzrok, R. See Perloff, W. H., and
Ross, V.

Kusaka, S.,  $\beta$ -decay with neutrino of spin  $\frac{\pi}{2}$ ,

See also Christy, R. F.

Kusakov, M., and Titievskaja, A., properties of multimolecular layers of nonaqueous liquids, I, 166.

Kusch, P. See Millman, S., and Shrader, E. F.

Kuschner, H. F., physiological nature of hybrid vigour in animals [blood count and hamoglobin], III, 724.

Kusehneruk, A. M., fruit and berry juices regarded as colloid systems, 1, 260.

Kuskin, L., and Brockman, L., two-step test as diagnostic aid in subclinical rheumatic heart disease, III, 171.

Kutscherenko, O. A. See Belozerski, N. A. Kutscherova, E. L. See Sorenji, E. T.

Kuttner, A. G., effect of large doses of vitamins-A, -B, -C, and -D on incidence of upper respiratory infections in group of rheumatic children, III, 208. Kuwada, S., Sasagawa, Y., and Nishikawa,

M., syntheses of stilbene derivatives. II. Synthesis of trans-4:4'-dihydroxy- $\alpha\beta$ -diethylstilbene, II, 320.

and Takeda, K., saponins. XVI. Constitution of nitro-compounds of the oleanolic acid series, II, 327. and Yoshiki, S., sterols. XXII. Identity

of bessisterol and spinasterol. XXIII. Sterol from seeds of Momordica

cochinchinensis, Spreng, II, 321.

Kuzin, A., and Bogdaschevskaja, O.,
morphological structure and enzyme

reactions, III, 702.

and Budnitzkaja, E., carboligase. VIII. Enzymie synthesis of carbon chains, III, 703.

and Makaeva, Z., reaction capacity of physiologically important substances in mixtures. III. Reactions of simple sugars in presence of glycine, II, 241. Mechanism of sugar synthesis from products of glycolysis. I. Oxidation of pyruvic acid in presence of glycine, III, 601. Glycogen content and specific polysaccharides of blood, III.

and Nevrajeva, N., biochemical synthesis of carbon chains of isoprene type, III,

and Poljakova, O. I., reaction capacity of physiologically important organic substances in mixtures. IV. Re-action capacity of ethyl ester of glycine in presence of carbonyl compounds, II, 243. Production and properties of additive compounds of amino-acids with sugars, II, 354.

and Suchareva-Budnitzkaja, E. comparison of carboligase with aldolase.

III, 623.

See also Stepanov, A.

Kuzmina, T. N. See Ravitsch, G. B. Kuznetz, M. M., histological changes in senile skin, III, 110.

Kuznetzov, V. G., and Guseva, L. N., X-ray study of aluminium-magnesiumcalcium alloys rich in aluminium, I, 252.

Kuznetzov, V. I., colour reaction for quadrivalent tin, I, 128. Precipitation of tin by means of phenylarsinic acid, I, 282.

and Bender, I. M., semi-quantitative determination of small amounts of tin, using "anthrazo-reagent" (1-pdimethylaminobenzcneazoanthraquinone), I, 388.

and Vasiunina, N. A., reaction of aminophenylarsinic acids with furfuralde-

hyde, II, 305. Kviat, E. I., chemical factors influencing development of structure in and stability of aluminium hydroxide sols. I. and II., I, II. Structural properties of ferric hydroxide sols, I, 12. Effect of organic compounds on structure formation in sesquioxide sols. I. Effect of tanning substances. II. Effect of proteins and amino-acids, I, 41.

**Kviat,** E. I., changes in aggregation equivalent A and chloro-aggregation equivalent B of ferric hydroxide sols with dilution, I, 42.

Kwiatkowski, H., histamine and reactive

hyperæmia, III, 974.

Kwit, N. T., Gold, H., and Cattell, M., II. purified digitalis glucosides. Potency and dosage of lanatoside C in man, III, 216.

Sec also Gold, H.

Kwong, F. J., histological study of mammary gland of cow during pregnancy, III, 197.

Kyker, C. C., Webb, B. D., and Andrews, J. C., determination of small amounts of quinine in blood and other biological materials, III, 716.

Kyriakis, L., relation of spleen to sex

organs, III, 580. Kyser, F. A. See Hartman, H. R.

Labate, J. S., influence of cocaine on uterine reactions induced by adrenaline and hypogastric nerve stimulation, III, 1048.

Labhardt, A., atiology and treatment of pruritus vulvæ [use of æstradiol], III,

Laboccetta, L., reduction of Wiedemann-Franz law of thermal and electrical conductivity of metals to an absolute form, I, 32.

Laborde, J. C. See Fournier, J. C. M.

Labriola, R. See Deulofeu, V.

Laeassagne, A., fusiform sarcomata in mice treated with sex hormones, III, 205. Measurement of effect of sex hormones on submaxillary gland of mouse, III, 270. Sexual dimorphism in sub-maxillary gland of mouse, III, 270. Effect of testosterone propionate on submaxillary gland of mouse and rat, III, 443.

and Danysz, S., mammary carcinoma in male mouse of non-susceptible strain suckled by female of very susceptible

strain, III, 279.

and Raynaud, A., mammary carcinoma in mice treated with estrone and testosterone combined, III, 198.

Lacey, H. T. See Lecher, H. Z. Lacey, W. N. See Carter, R. T. Lachat, P. Seo De Diesbach, H.

Lacher, J. R. See Kistiakowsky, G. B. Lachno, E. V., effect of ascorbic acid on oxidation-reduction processes in central nervous system. II. Intensity of oxidation-reduction processes in guinea-pig brain after saturation of the organism

with ascorbic acid, III, 778.

Lachtina, E. See Lukomskaja, M. Lackey, R. W. See Slaughter, D.

Lacoste, A., Aubertin, E., De Lachaud, R., and Martinet, R., hepatic lesions and dysfunction following oral carbon tetrachloride in dog, III, 466.

Lacoste, J. See Didier, M.

Ladame, G. C., oxide ores from auriferous and argentiferous lead mine at Bolkardag, Turkey, I, 135.

Ladenburg, K., and Noller, C. R., saponins and sapogenins. XVII. Structure of side-chain of chlorogenin, II, 263.

Ladenburg, R., and Beers, Y., charge of β-particle, I, 22.
Ladigin, N. See Essin, O.

Ladisch, R. K., and Frazer, J. C. W., catalytic properties of beryllium chromite, I, 272.

See also Spies, T. D.

La Due, J. S., results of injections of lanatoside-C on heart muscles of dogs, III, 1050.

La Force, R. See Deakin, R.

Lage, H. zur, cholesterol content of adrenals in children aged 1—4, III, 348. Laguto, F. M. See Jermolenko, N. F.

Lahey, F. H., indications for gastric resection, III, 877.

Lahr, E. L., Riddle, O., and Bates, R. W., response of testes of immature pigeons to gonadotropins, III, 674.

Lahr, P. H. See Eversole, W. G.

Lai, B. B. See MacMahon, P. S. Laidler, K. J., Glasstone, S., and Eyring, II., application of theory of absolute reaction rates to heterogeneous processes. I. Absorption and desorption of gases. II. Chemical reactions on surfaces, I, 16. Lain, E. S., sulphanilamide in glycerin in treatment for pyodermas, III, 1047.

Laine, T., determination of tyrosine in protein hydrolysate, II, 115.

See also Virtanen, A.I.

Laird, S. M., renal complications of sulphapyridine therapy, III, 1047. Laitinen, H. A., sintered-glass salt bridge,

Lajami, S. S. See Paranjpe, G. R. Lake, N. C., chemotherapy in surgery, III,

Lakiu, H. W., and Hermann, F. J., Astragalus artemisiarum, Jones, as a selenium absorber, III, 61.

See also Williams, K. T. Lal, M. Sce Bahl, R. K.

Lalande, W. A., jun. See Ruzicka, L. Lamb, A. B., and West, C. D., adsorption of nitrous oxide on pseudomorphs, I, 254. Lamb, F. W., determination of blood-magnesium, III, 730.

Lamb, V. A., apparatus for plating hydro-

gen electrodes, I, 131.
and Haring, M. M., spring pendulum
current interrupter for magnetic stirrer, with application to experiment

in catalysis, I, 178.

Lamb, W. E., jun., passage of uranium fission fragments through matter, I, 24. and Nordsieck, A., Einstein condensation phenomenon, I. 290.

Lambert, A. See Gillam, A. E. Lambert, J. D. See Alexander, E. A. Lambert, R. H. See Sheppard, S. E. Lamberton, A. H. See Ruzicka, L.

Lambertsen, C. J. See Atkinson, W. J. LaMer, V. K., and Nachod, F. C., temperature coefficient of conductance potassium chloride in H<sub>2</sub>O-D<sub>2</sub>O mix-

tures, I, 268.

Lammers, D. See Winters, W. L. Lamoneux, W. F., spermatozoal antibodies and infertility in fowl, III, 577.

Lamont, A., Firor, W. M., and Shumacker, H. B., jun., "lethal dose" of toxin in experimental tetanus, III, 932.

See also Firor, W. M., and Shumacker,

H. B., jun.
La Mont, C. A., arteriosclerosis of Mönckeberg type in adolescent diabetic, III, 977. Lampen, J. O., and Peterson, W. H., biotin and p-aminobenzoic acid as growth factors for the acetonebutanol organism, Clostridium aceto-butylicum, III, 1066.

See also Hottle, G. A., and Oxford, A. E.

Lampitt, L. H., function of food industry, III, 21.

Lampland, C. O. See Adel, A.

Lampman, C. E. See Williams, J. K.

Lamson, P. D. See Butler, T. C. Lan, T. H. See Cheng, L. T. Lanari, A. See Battro, A.

Lancaster, W. B., fifty years' experience in ocular motility. I.—III., Ill, 568, 747. Landau, A., Wassermann, Kahn's, and Sachs-Georgi's reactions in scarlet fever,

III, 54. Landau, E., silver impregnation technique for cerebral cortex histology, III, 723.

Landau, L., "radius" of elementary particle, I, 70.

and Tamm, I., nature of nuclear forces,

Landauer, W., Pfeisser, C. A., Gardner, W. U., and Shaw, J. C., blood serum and skeletal changes in two breeds of ducks receiving æstrogens, III, 441.

Landé, A., existence and magnitude of electronic charges, I, 70. Ratio of e, c, and h, I, 146. Magnitude of electronic charges, I, 236. Finite self-energies in radiation theory. I. I. 397.

and Thomas, L. H., stability and magnitude of electronic charges. II. Scalar

wave functions, I, 96.

Lande, P., Dervillée, P., and Godeau, J., distribution of alcohol introduced into stomach between various organs and body fluids, III, 295.

Lander, H. H., Lyman, R. Y., and Anson, B. J., anatomy of structures in hepatic

pedicle, III, 949. See also Hines, E. A., jun.

Landers, G., objective auscultation of lungs, III, 83. Physics of normal lung percussion, III, 83.

Landes, J. H., infrequency of diphtheria toxoid reactions in school children, III, 537.

Landgrebe, F. W., nomenclature of pituitary autacoids, III, 868.

and Purser, G. L., breeding of Xenopus in laboratory [action of pituitary hormones], III, 870.

Landis, E. M., hypertension and pressor activity of heated extracts of human

kidneys, III, 979.

Elsom, K. A., Bott, P. A., and Shiels, E. H., simultaneous plasma clearances of creatinine and organic iodine compounds in relation to human kidney function, III, 883.

See also Kapp, F.

Lando, L. I. See Rozenfeld, L. E.

Lands, A. M., Cutting, R. A., and Larson, P. S., size of extracellular fluid compartment before and after massive infusions, III, 732.

Landsberg, E. See Hollander, A.

Landsberg, G., and Tschubin, A., diffusion of light in crystal of non-uniform temperature, I, 158.

Landsberg, H., dust determination, III, 299. Landsberg, J. IV. See Hneper, IV. C.

Landshoff, R., virial theorem in theory of metals, I, 318.

Landsteiner, K., and Chase, M. W., quinine hypersensitivity in guineapigs, III, 790.

and Di Somma, A. A., sensitisation of animals with simple chemical compounds. VIII. Sensitisation to pieric acid; subsidiary agents and mode of sensitisation, III, 618.

Landsteiner, K., and Harte, R. A., groupspecific substances in human saliva, III, 885.

Landt, H., and Benjamin, J. E., carbon dioxide in venous blood on rebreathing,

Landy, M., and Dicken, D. M., biotin synthesis by micro-organisms, III, 798. Lane, A. C., radioactive series, I, 359.

Lane, C., thymol as anthelminthic, III, 217.

Lane, C. E., ovary of adult rat: changes in follicular apparatus during pregnancy,

Lane, C. G., and Blank, I. H., sulphonated oil as detergent for diseases of skin, III, 697.

Lane, J. F., and Wallis, E. S., molecular rearrangements involving optically active radicals. IX. Wolff rearrangement of optically active diazo-ketones, II, 293.

Lane, L. W. See Calderwood, H. N.

Lanford, C. S., Campbell, H. L., and Sherman, II. C., influence of differential nutritional conditions on level of attainment in normal increase of calcium in the growing body, III,

Finkelstein, B., and Sherman, H. C., riboflavin contents of typical fruits, III, 519.

See also Van Duyne, F. O.

Lanford, O. E., and Kiehl, S. J., fourth ionisation constant of ferrocyanic acid, I, 167. Solubility of lead iodide in solutions of potassium iodide; complex lead iodide ions, I, 253.

Lang, E. H., and Reiner, L., crystalline insulin derivatives, II, 306.

See also Reiner, L.

Lang, E. R. See France, W. G.

Lang, H.J., action of morphine on intestine in experimental ileus and after laparotomy, III, 105.

Lang, K., distillation apparatus for chemical micro-methods, III, 152.

Lange, F. F., and Schpinel, V. S., production of hard corpuscular radiation, I, 288.

Langer, A., radiometric titration with radioactive phosphorus as end-point indicator, I, 280.

and Stephens, W. E., radioactive barium and strontium from photo-fission of uranium, I, 25.

See also Kolthoff, I. M.

Langham, D. G., effect of light on growth

habit of plants, III, 816.

Langham, R. F. See Sholl, L. B.

Langham, W., Brewster, R. Q., and Gilman,
H., metallation and halogen-metal interconversion reactions of halogenated phenyl ethers, II, 112.

Langley, J. R. See Gall, E. A.
 Langley, W. D., determination of urinary histidine, III, 274.

Langmuir, D. B., and Nelson, R. B., erystal structure models for closepacked systems, I. 7.

Langmuir, I., and Waugh, D. F., pressuresoluble and pressure-displaceable com-ponents of monolayers of native and denatured proteins, I, 39.

Languer, P. H., jun., and Fies, H. L., influence of antecedent diet on Exton-Rose one-hour, two-dose glucose tolerance test, III, 604.

and Kern, R. A., extracts from pollens,

III, 147.

Langsam, C. L., omohyoid muscle in American whites and negroes, III, 717. See also Krause, G. R.

Langston, W. C. See Day, P. L. Langstroth, G. O., Brown, W. W., and Newbound, K. B., collimated light beams in spectrophotometry, I, 130. Directreading microphotometer, I, 431.

Langworthy, O. R., Kolb, L. C., and Lewis, L. G., physiology of micturition,

See also Grimmer, R. V., Hesser, F. H., Teitelbaum, H. A., and Vest, S. A.

Lanier, R. R., effects of maceration and drying on presacral vertebræ, III, 238. Lankelma, H. P. See Hovorka, F.

Lankford, C. E., determination of sulphanilamide derivatives, III, 1043.

Lantz, V., f.p. and low-temperature viscosities of diacetone alcohol-acetone mixtures, I, 251.

Lapicque, L., speed of nervous impulse, thickness of fibre, and chronaxie; artificial nerve of Lillie; invertebrate nerves, III, 177.

Lapides, G. See Gesell, R. Lapin, J. H. See Weichsel, M.

Lapin, P. M., and Liepatov, S. M., stabilisation of suspensions by fractions of gelatin and agar, I, 41.

Lapkin, I. I., Schklaev, V. S., and Schklaeva, T. I., steric hindrance in Grignard reaction. I. Reaction of magnesium mesityl bromide with ethyl formate and acetate, II, 342.

Laporte, R., allergic properties of paratubercular bacilli, III, 476.

Lapp, V. R., paresis of larynx, III, 1001. Laqueur, G. L., and Emge, L. A., morphological ovarian changes in œstrogentreated thyrohyperplastic rats, III,

See also Emge, L. A., and Schilling, W. Lardy, H. A., and Phillips, P. H., effect of inhibitors and activators on sperm metabolism, III, 523.

See also Phillips, P. H. Larionov, J. See Seidel, A.

Lark-Horowitz, K., and Leng, H. R., radioactive indicators, enteric coatings, and intestinal absorption, III. 512.

and Schreiber, R. E., uranium fission with Li-D neutrons: energy distribution of fission fragments, I, 395.

and Yearian, H. J., electron diffraction intensities, I, 453.

Larkin, W. J., dysmenorrhon and its treatment by benzedrine sulphate, III, 915. Larmor, (Sir) J., surface films of polar

crystals, I. 411. Larocco, C. G. See Cummer, C. L.

Laroche, G., cure of bilateral cataract induced by dinitrophenol treatment with parathormone, III, 433. Blood-phosphates in non-senile cataract, III, 433.

Larregla, N. See Gilsanz, V. Larsen, E. S.; 3rd, and Montgomery, A., sterrettite, a new mineral from Fairfield, Utah, I, 352.

Larsen, P., inhibition of extensional growth by naturally-occurring ether-soluble substances, III, 404. Larson, C. P. See Sneeden, V. D.

Larson, E., effect of posterior pituitary preparations on large intestine of unanæsthetised dog, III, 1050.

Larson, H. W., comparison of xylose tolerance with blood-urea in nephritic rats, III, 1020.

Larson, H. W., Blatherwick, N. R., Bradshaw, P. J., Ewing, M. E., and Sawyer, S. D., metabolism of l-xylose, III, 32. Metabolism of l-xylulose, III, 525.

Larson, N. See Helmholz, H. F. Larson, P. S. See Lands, A. M.

Larson, R. See Riebsomer, J. L. Larsson, E., a-hydroxy-a-methylthiodiacetic acid, II, 312.

Lasarev, B. G. See Kikoin, A. K.

Laser, H., effect of ancurin on fermentation of yeast, III, 596.

Lashley, K. S., patterns of cerebral integration indicated by scotomas of migraine, III, 1000.

Laskowski, M., and Fromageot, C., properties of desulphurase, 111, 922.

Lasnitzki, A., and Brewer, A. K., isotopic constitution of potassium in rat tissues. III, 275. Increase of heavy potassium in plasma, III, 290.

Lasnitzki, I., effect of X-rays on cells cultivated in vitro, III, 45.

and Lea, D. E., variation with wavelength of biological effect of radiation.

Lassek, A. M., numerical investigation of Betz cells of motor area, III, 343. Pyramidal tract of monkey, III, 663.

Lassen, N. O. See Jacobsen, I. C. Last, J. H., and Hays, E. E., effect on blood picture of 15-day embryo of liver extract injected into pregnant rat, III, 552. Effect of liver extract on blood picture of 11-day embryo after injection into pregnant rat, III, 828.

Lasz, J., and Steuer, E. I., thyrogenic

migraine, III, 93. Laszlo, D. See Lewisohn, R.

Laszt, L., skin disease of adrenalectomised rats caused by lack of nicotinamide, 111,

Latimer, R. D. See Bronaugh, W. Latimer, W. M. See Coulter, L. V. La Towsky, L. W., MacQuiddy, E. L., and

Tollman, J. P., toxicology of oxides of nitrogen. I., III, 920.

See also MacQuiddy, E. L., and Tollman, J. P.

Latta, J. S., and Davies, L. T., effects on blood and hamopoietic organs of albino rats of repeated administration of benzene, III, 324.

See also Finlayson, A. I.

Lattimore, J. L. See Gold, A., and Pusitz, M. E.

Laubengayer, A. W., and Eaton, R. B., reducibility of quadrivalent zirconium,

Ferguson, R. P., and Newkirk, A. E., densities, surface tensions, and para-ehors of diborane, boron triethyl, and boron tribromide; atomic parachor of boron, I, 194.

and Gilliam, W. F., alkyls of third-group elements. I. Vapour-phase studies of alkyls of aluminium, gallium, and indium, I, 200.

See also Pauling, L.

Laue, M. von, classification of Kossel-Möllenstedt electron interferences in space-lattice theory, I, 31. Interference double refraction of X-rays in crystal prisms, I, 452. Electrostatics of crystal lattice, I, 454.

Lauer, W. M., Gensler, W. J., and Miller. E., synthesis of \( \Delta^a\)-pentadecenoic and -heptadecenoic acids, II, 183.

Lanfer, S. See Tauber, H.

Lauffer, M. A., ultracentrifugation studies on tobacco mosaic and bushy stunt viruses, III, 232. and Ross, A. F., physical properties of

alfalfa mosaic virus, III, 312.

Laughlin, E. R. See Godlove, I. II. Laughlin, K. C. See Whitmore, F. C.

Laurence, G. C. See Quimby, E. H. Laurens, H., regulation of body temperature, III, 792.

Laurentius, P., paroxysmal tachycardia in infancy, III, 335.

Lauritsen, C. C. See Lauritsen, T., and Streib, J. F.

Lauritsen, T., Lauritsen, C. C., and Fowler, W. A., application of a pressure electrostatic generator to transmutation of light elements by protons, I, 187.

See also Boggild, J. K., Bohr, N., and Brostrom, K. J.

Lauro, C., natural basic carbonates of copper and zinc, I, 436. Barytes from Campo Pisanu (Iglesias), I, 436.

Laval, J., relationship between myopia and avitaminosis, III, 501.

Lavelle, J., congenital malformation of cervical spine (Klippel-Feil syndrome), III, 2.

Laves, F., and Wallbaum, H. J., crystal structure of NiaTi and SiaTi, I, 154.

Lavietes, P. H., Bourdillon, J., and Klinghoffer, K. A., volume of the extracellular fluids of the body, III, 885. See also Bourdillon, J.

Lavik, P. S. See Baumann, C. A.
Lavin, G. I. See Craig, L. C., Hoagland, C. L., Hodes, H. L., and Salk,

J. E.

Lavrov, V. See Altherg, V.

Law, L. W., cancer-producing properties of azo-compounds in mice, III, 1024.

Lawler, H.J. See Atkinson, E.R.Lawless, T. K., tularæmia, III, 1074.

Lawrence, C. H., and Werthessen, N. T., endocrine dyscrasia of acne vulgaris in women, III, 101.

Lawrence, J. H. See Erf, L. A., Stone, R. S., and Tuttle, L. W.

Lawrence, J. S., leucopænia, III, 645. See also Dowdy, A. H., and Ellman, P. Lawrence, L. B. See Ohlheiser, H. R.

Lawrence, M. See Wever, E. G. Lawrence, R. D., hæmochromatosis associated with acanthosis nigricans, III, 899.

and Madders, K., estrogens in human

diabetes, III, 676.
Lawrence, W. See Wever, E. G.
Lawrence, W. J. C., and Scott-Moncrieff, R., genetics and chemistry of flower colour in dahlia: specific pigmentation, III. 62.

Lawrence, W. S. See Schulte, J. W. Lawrenz, M., Mitchell, H. H., and Ruth, W. A., comparative assimilation of fluorine by growing rats during continuous and intermittent dosage, III,

Lawrie, N. R., Moore, T., and Rajagopal, K. R., exerction of vitamin-A in urine, III, 884.

Laws, C. L., sensitisation to thiamin hydrochloride, III, 1035.

internal friction in polycrystalline copper,

Lawson, A. W., elastic modulus  $s_{13}$  of  $\beta$ -quartz, I, 294. Elastic constants of a-quartz, I, 328. Effect of stress on

I, 455. Lawson, F. L. See Goodwin, J. E. Lawson, G. McL. See Waddell, W. H. Lawson, H., differential metal bellows manometer for measurement of blood flow, III, 79. Gravimetric intestinal oncometry in dog, III, 561.

Lawson, R. B., treatment of hypoprothrombinæmia (hæmorrhagic disease) of

newborn infant, III, 726.

Layne, J. A., and Bergh, G. S., pain in human biliary tract induced by spasm of sphincter of Oddi, III, 446.

Lazarenko, E. K., donbassites, group of minerals from the Donetz basin, I, 182.

Lazarev, P. P., and Bulanova, Z. V., fluctuations in peripheral vision, III,

Lazarus, A. S., typhoid typing in Western States, III, 395.

and Meyer, K. F., virus of psittacosis. 1.—III., 111, 1076.

Lazarus, S. See Bell, G. H., and Graham, J. D. P.

Lazurkin, J. S., polymerides. II. Dynamic method for study of elastic materials, I, 112.

Sec also Alexandrov, A. P.

Lea, D. E., devices for maintaining constant output of X-ray tubes, III, 46. See also Lasnitzki, L.

Leach, B. E. See Forbes, J. C.Leach, C. N. See Johnson, H. N.Leader, G. R. Sec Glockler, G. Leaders, W. See Schumb, W. C.

Leadingham, R. S., sodium citrate: a spirochæticide, III, 930.

Leah, A. S. Sec David, W. T. Leang, W. V. Sec Butt, H. R. Learmouth, J. R. Sec Stewart, C. P.

Leary, T., atherosclerosis, III, 122. Leasure, E. E., and Foltz, V. D., absorption in crop of chicken, III, 14.
Leathem, J. H., effect of "prospermin"

on immature and mature hypophysectomised and normal male rats, III, 576. Mode of administration as influence on effectiveness of mare serum hypophysectomised immature female rats, III, 579.

and Levin, L., gonadotropic action of normal male urine extract on ovaries of normal and hypophysectomised immature rats and of immature mice, III, 759.

Sec also Jailer, J. W.

Le Beau, D. S. See Hauser, E. A.

Lebed, P., determination of azeotropic mixture of ethyl alcohol and m-xylene, I, 406. Influence of electrolytes on surface tension of eosin G solutions, I. 465.

Lebedev, A. A., structure of glass derived from X-ray analysis and study of optical properties, I, 203.

Lebedev, B. M. See Belov, V. N.

Lebedeva, A. I. See Freidlin, L. C. Lebedeva, E. S. See Bolschakov, P. Lebensohn, J. E., eye and sleep, 111.

500. Lebensohn, Z. M., metrazol (cardiazol) therapy of schizophrenia, III, 499.

Lebenzon, E. G., nature of effect of benzpyrene and methylcholanthrene on tissue cultures, III, 205.

Leberman, P. R., effects of experimental chronic hyperparathyroidism on kidney of dog, III, 571.

Leblond, C. P., and Chamorro, A., effect of hypophysectomy on ascorbic acid content of adrenals and other organs. III. 186.

Leblond, C. P., and Sue, P., fixation of radioactive iodine (128I) in thyroid stimulated by thyrotropin, III, 437.

Sue, P., and Chamorro, A., passage of radioactive iodine (128I) in thyroid of hypophysectomised animals, III, 437.

Lebowich, J., and Hunt, H. D., diagnostic significance of eosinophilia in periarteritis nodosa, III, 165.

Le Breton, E. See Schaeffer, G.

Le Caine, H., and Waghorne, J. II., ionisation amplifier, I, 223.

Lecannelier, S. Sec Lipschütz, A.

Lecher, H. Z., Lacey, H. T., and Orem, H. P., formation of copper phthalocyanine, II, 271.

Lechycka, M. See Clarke, M. F. Ledanov, S. N. See Jankelevitsch, M. E. Lederer, H., effect of thorium emanation on cancerous white mice, III, 207.

Lederer, R., acute hæmolytic anæmia: "Baghdad spring anæmia," III, 644.
Ledingham, A. E. See Marion, L.

Ledoux, A. See Aldred, P.

Lee, C. D., and Wilcke, H. L., fowl leucosis. IV. and V., III, 165,

Lee, E., Sutherland, G. B. B. M., and Cheng-Kai Wu, vibration spectra of condensed gases at the temperature of liquid nitrogen, II. Infra-red and Raman spectra of hydro- and deutero-chloric acid at liquid nitrogen temperatures, I, 97.

Sec also Conn. G. K. T Lee, F. A. See Tukey, H. B.

Lee, F. A. See Tukey, H. H.
Lee, F. C. See Otenasek, F.
Lee, G. M. See Hippel, A. von.
Lee, J., Solmssen, U. V., Steyermark, A.,
and Foster, R. H. K., antihæmorrhagie activity of tetrasodium 2-methyl-1:4naphthaquinol diphosphoric acid ester and other naphthaquinone derivatives, III, 645.

Lee,  $\hat{J}$ . S. See Tsai, C.

Lee, L. E., drugs in pain of cancer, III,

Lee, L. Y., effect of acetylcholine and indirect stimulation on sensitisation of rectus muscle to acetylcholine, III. 427.

See also Chang, H. C.

Lee, R. C., relation between insensible loss of weight and heat production in rabbit, III, 30. Colonos, N. F., and Ritzman, E. G.,

skin temperatures of pig, goat, and sheep under winter conditions, III, 897.

Lee, S. B. See Wilson, P. W.

Lee, S. K., formation of sympathetic substance in liver, III, 882. Detoxicating abilities of liver. I. Histological. 111, 882.

Lee, T., endocrine disorders in China, III, 1001.

Lee, W. Y. See Crowden, G. P.
Leech, P. See Jones, F. W.
Leech, W. D. See Haagen-Smit, A. J.,
and Harding, W. G., jun.

Leekley, D. See Bachman, C. Leekley, J. R. See Enders, R. K.

Lees, A. D., operation on pupal wing of Drosophila melanogaster, III, 488.

Lees, W. L. See Ramsey, W. E. Leetch, H. W., and Hayes, J. N., tonic in chronic pulmonary tuberculosis, III. 919.

Lefebvre, J. See Turpin, R. Le Fever, H. E. See Knies, P. T. Lefèvre, II. See Engelbreth-Holm, J. Legge, J. W., and Lemberg, R., coupled oxidation of ascorbic acid and hamo-globin. IV. Labile iron of blood: production during choleglobin formation, II, 178.

Sec also Lemberg, R. Leggett, C. W. See Void, R. D. Le Gier, M. See Brown, G. O. Legler, R. See Karrer, P.

Legran, A., and Levina, S., overvoltage of hydrogen on nickel in acid solutions, I, 418.

Legraye, M., auriferous ores from Salsigne

(Aude, France), I, 492.
Lehman, A. J. Sce Yonkman, F. F.
Lehman, E. P., and Boys, F., prevention of peritoneal adhesions with heparin, III, 74.

Lehman, R. A., pharmacology of di- $(\beta$ cyclohexylethyl)methylamine hydrochloride (cyverine hydrochloride), III, 614.

See also De Graff, A. C.

Lehmann, G., influence of autonomic drugs and nerve stimulation on spasm of cardiac sphincter following bilateral vagotomy, III, 765.

Lehmann, Heinz, nitritoid crisis following injection of tryparsamide, III, 916.

Lehmann, Hermann. See Needham, J. Lehmann, J., electrometric micro-determination of chloride in blood, serum, and urine, III, 64.

Lehmann-Facius, H., serological studies on cerebrospinal fluid and blood in schizo-

phrenia and atypical psychoses, III, 996. Lehr, D., Antopol, W., Churg, J., and Spring, H., acute toxicity of sodium salts of sulphapyridine, sulphathiazole, and sulphamethylthiazole, III, 694.

Churg, J., and Antopol, W., mechanism of liver and kidney damage caused by sodium sulphamethylthiazole, III, 694.

See also Antopol, W.

Lehrman, L., Been, J., and Mandel, I., coprecipitation of barium ion with sulphides of ammonium sulphide group in presence of ammonium ion, I, 332.

Lehrman, S. R. See McKendree, O. J. Leibner, I. W. See Kaye, I. A.

Leibowitz, J., and Avinery-Shapiro, S., glycolysis, hydrolysis, and phosphorolysis in Corynebacterium diphtheriæ, III,

Leibowitz, S. See Chasnoff, J.

Leibnsch, A., and Bergo, G., reaction of methane with steam. II. Velocity of reaction, I, 118.

Leichenger, H., and Abelson, S. M., pneumococcic type XIX meningitis with recovery, 111, 460.

See also Abelson, S. M.

Leidenheimer, H., and Albritton, A. S., bleeding tendency and vitamin-K therapy in newborn, III, 834.

Leifer, W. See Chargin, L.
Leigh, O. C. See Ferrebee, J. W.
Leighton, H. W. See Dwyer, R. J.
Leighty, J. A., Wick, H. J., and Jeffries,

B. E., percutaneous administration of cestrogens followed by progestin in inducing sexual receptivity in spayed guinea-pigs, III, 577.

Leipunskaja, D. I. See Kargin, V. A. Leipunski, A. I., fission of [atomic] nuclei, I, 287.

Leipunski, O. See Apin, A.

Leiter, J. See Shear, M. J. Leley, V. K., Narayana, N., and Daji, J. A., growth and ripening of banana, III, 314.

Leloir, L. F., Mufioz, J. M., Braun-Menendez, E., and Fasciolo, J. C., secretion of renin and formation of hypertensin, III, 172.

See also Battro, A., Braun-Menéndez, E., and Fasciolo, J. C.

Lem, F. See Fabre, R.

Lemar, A. H. See Asheroft, L. S. Le Mar, J. D., Mantoux test and Vollmer patch test, III, 814. Serum reactions, III, 831.

Le Masurier, H. E., and Brianon, H. D., skeletal development of fowl to six weeks of age, III, 29.

Lemberg, R., Legge, J. W., and Lockwood, W. H., coupled oxidation of ascorbic acid and hæmoglobin. II. Formation and properties of choleglobin. Determination of cholegiobin and of hamoglobin and ascorbic acid con-sumption. V. Formation of bile pigments from choleglobin and verdohæmochromogen and their isolation from erythrocytes, II, 178; III, 447. See also Legge, J. W.

Lembke, A., and Ruska, H., microscopic and ultra-microscopic investigations on

tubercle bacilli, III, 476.

Lemere, F., and Arnason, J. S., azosulphamide in recurrent tetanus, III, 1045. Lemmon, W. T., and Paschal, G. W., jun.,

continuous spinal anæsthesia, II, 913. Lemon, G. F., jun. See Payne, J. H. Lemons, J. F., Anderson, R. C., and Watt,

G. W., kinetics of the ammonolysis of 2-chlorobenzothiazole by liquid ammonia, I, 381.

Lempke, H., electric burns in infants, III, 532.

Lenart, G., hormones of development, III, 239.

Lender, A., hereditary alcoholism in Tropaeolum majus, III, 710.

Lendrum, A. C., fixation of post-mortem material, III, 242. Preparation of tissues for paraffin embedding, III, 242.

Lenert, T. F. See Reyersback, G. Leng, H. R. See Lark-Horowitz, K.

Lennard-Jones, J. E., and Corner, J., calculation of surface tension from intermolecular forces, I, 10.

See also Corner, J.

Lennerstrand, A., effect of fermentation on stability of cozymase, III, 226.

Lennette, E. H., and Horsfall, F. L., jun., epidemic influence virus: nature and properties of complement-fixing antigen, III, 477.

See also Bourdillon, J., and Smith, M. G. Lennox, F. G., physiology and toxicology of blowflies. VII. Quantitative examination of the iron content of Lucilia cuprina, III, 276.

Lennox, W. G., epilepsy: investigation and treatment, III, 178.

Lentz, R. W., cure of sterility in sows with "enoulan" wheat-germ oil, III, 197.

Lenzi, M., biological effects of magnetic fields, III, 20.

Leo, S. D., Prinzmetal, M., and Lewis, H. A., pressor substance causing rise in blood pressure following termination of renal ischæmia, III, 978.

Leonard, A. See Deuel, H. J., jun. Leonard, A. B., accelerated tissue response

to Cysticercus pisiformis in passively immunised rabbits, III, 313. and Leonard, A. E., convenient turntable

for staining jars, III, 315. Leonard, A. E. See Leonard, A. B.

Leonard, B. W. See Daniels, W. B. Leonard, C. S., aneurin hydrochloride-

bismuth tri-iodide complex, III, 374. Leonard, E. R., tropical fruits. X. Transpiration during ripening, III, 817.

Leonard, M. E., and Falconer, E. H., experimental thrombocytopenic purpura

in guinea-pig, III, 328.

Leonard, R. W., absorption of sound in carbon dioxide, 1, 33. Apparatus for direct measurement of absorption of sound in gases, I, 180.

Leonard, S. L., and Reece, R. P., relation of thyroid to mammary gland growth in rat, III, 261.

Leonardos, O. H., metamorphic strata of Carandai (Minas-Gerais), I, 227.

Leone, G.~E., spontaneous hæmorrhage into adrenals, III, 1004.

Leong, P. C., vitamin-A in blood and its relation to body reserves, III, 891.

Leonhardt, H., treatment of mixed infected pneumonia with combination of solvocbin and prontosil, III, 459.

Leonteeva, A., relation between linear speed of crystallisation and viscosity for Na<sub>2</sub>O-SiO<sub>2</sub> glasses, I, 331. Speed of crystallisation of silicate glasses as a

function of viscosity, I, 408.

Leontovitsch, A. V., brain-weight and senility, III, 9, 178. Neuro-humoral regulation, III, 177.

Leontovitsch, M., distribution of intensity of molecular diffusion of light in a crystal of non-uniform temperature, I. 158.

Leopold, H. C. See Clarke, J. A., jun. Leopold, J. S., and Sobel, I. P., sulphapyridine in pneumonias of infancy and

childhood, III, 1044. Leopold, S. S. See Lieberman, L. M. Leopoldi, G. See Fischer, Hellmut.

Lepeschkin, E., monophasicaction potentials and electrocardiogram in asphyxia, III, 421.

Leporati, I., avitaminosis- $B_1$  in normal and thyroidectomised rats, III, 24.

Lepore, M. J., clinical significance of low or "flat" oral glucose tolerance curve, III, 970.

Lepp, A. See Dimick, M. K. Lepper, H. A., jun., and Lewis, G. E., materials for preparation of vertebrate fossils, I, 91.

Leprince-Ringuet, L., Gorodetzky, Nageotte,  $E_1$ , and Richard-Foy, direct measurement of mass of the mesotron, I, 235.

Leriche, R., and Werquin, M. G., arterial ligature and vasomotor system, III, 172. Lerman, L. H., respiratory paralysis under anæsthesia, III, 464.

Lerner, I. M. See Needham, J., and Taylor, L. W.

LeRosen, A. L., Went, F. W., and Zechmeister, L., relationship between genes

and carotenoids of tomato, III, 711.

LeRoy, D. J. See Steacie, E. W. R.

LeRoy, G. V. See Gilbert, N. C.

Leser, A. J., Lombard, C. F., Thienes,
C. H., Wawra, C., and Webb, J. L.,
effect of vitamin-P on circulatory system, III, 843.

and Thienes, C. H., effect of atropine on local action of procain, III, 695.

Thienes, C. H., and Tyler, D. B., effect of low body temperature on toxicity of drugs, III, 297.

See also Thienes, C. H. Leshin, N. See Lewy, A. Leshne, F. L. Sec Beattie, M. W. Leslie, A. See King, F. H. Lessa, W. A. See Tucker, W. B.

Lesslie, M. S., Turner, E. E., and Winton, E. R., salts of diphenic acid with optically active bases, II, 225.

Lester, D., and Bergmann, M., marine products. VI. Occurrence of cetyl palmitate in corals, III, 367.

Sec also Bergmann, W.

Lesuk, A., and Anderson, Rudolph J., lipins of tubercle bacilli, LXII. Mycolic acid, II, 59. Chemical composition of Cysticercus fasciolaris. II. Occurrence of a cerebroside containing dihydrosphingosine and of hydrolecithin in Cysticercus larvæ, III, 587.

Letang, N. J. Sce Brown, W. G.

Letonoff, T. V., colorimetric determination of lead by diphenylcarbazide, III, 1087.

Letter, J. See Shimkin, M. B.

Lettre, H., and Fernholz, M. E., chemically marked antigens. II. Reactivity of oxazolones, II, 363; III, 1078.

and Haas, R., chemically marked antigens. I. Preparation, III, 1078. Leuchtenberger, C. See Lewisohn, R.

Leuchtenberger, R., and Sicher, G., visceral lesions following single subcutaneous injection of benzpyrene in mice, III, 451.

See also Lewisohn, R.

Leupin, O. See Ruggli, P. Leuthardt, F., clinical pathology of sulphonamide treatment, III, 36. Simplified Takata reaction; diazo-reaction after administration of sulphapyridine, III,

See also Wuhrmann, F.

Leutski, K. M., effect of prolonged mineraldeficient diet on mineral metabolism. II. and III., Ill, 691.

Leva, E. See Rapoport, S. Levaditi, C., Vaisman, A., and Krasnoff, D., chemotherapeutic action of sulphur derivatives in experimental pneumococcal infections, III, 124.

Levaditi, J., and Giuntini, J., biological variation in behaviour of streptococci samples from war wounds treated with sulphonamide derivatives, III, 931. Biochemical properties of streptococci isolated from war wounds, III, 931. Levander, G., rôle of bone marrow in bone

regeneration, III, 74.

Levant, G. E., and Alperovitsch, E. L., soap oleosols. I. Solution of soap in

hydrocarbons, I, 36. Levene, P. A., methylation of hexosamines,

II, 88. Carbohydrate group of egg proteins. III. II, 313. Chondrosin, 11, 316.

and Kuna, M., configurational relationship of a-methylheptoic and y-methylnonoic acids, II, 311. Configurational relationships of aliphatic amines, II, 316.

See also Kuna, M.

Levenson, H. S. See Smith, H. A.

Levenstein, I., Gordon, A.S., and Charipper, H. A., in vitro maintenance of mammalian endocrine organs, III, 570. See also Vollmer, E. P.

Lever, W. F., and Talbott, J. H., action of dihydrotachysterol in chronic pemphigus, III, 698.

Levethan, S. T., Fried, A. J., and Madonick, M. J., myasthenia gravis, III, 658. Levey, S. Sec Freyberg, R. H.

Levi, A. A. See Boyland, E. Levi, J. E., and Willen, A., sulphaguanidine and typhoid carrier, III, 1045.

Levi, R., cardiac infarction, III, 560. Levialdi, A. mounting "globar" Levialdi, A. mounting researches in the infra-red, I, 90.

Levie, L. H. See Gaarenstroom, J. II.

Levin, B. See Rhoads, P. S. Levin, B. B. See Titov, A. I. Levin, E. A. See Torrey, F. A.

Levin, H. See Uhrig, K.

Levin, I., physical therapy in rheumatoid and ostcoarthritis, III, 919.

Levin, L., quantitative precipitation of urinary gonadotropin of normal men and women, III, 442.

See also Engle, E. T., Leathem, J. H., and Smelser, G. K.

Levin, M. See Geier, F. M., and Gesell, R. Levin, S. J., soya-bean emulsion in simplified regime for study and treatment of infantile eczema, III, 56.

Levin, W., typhoid typing [and health officer], III, 807.

Levina, R. J., Karelova, L. E., and Eliaschberg, I. A., isomerisation of unsaturated hydrocarbons in presence of oxides of metals. IV. Isomerisation of p-diallylbenzene and 1-allylnaphthalene in presence of aluminium oxide, II, 37.

and Kulikov, S.G., decahydronaphthalene series. I. Synthesis of  $\beta$ -substituted cis- and trans-decahydronaphthalenes with saturated or unsaturated sidechains consisting of three carbon atoms, II, 247.

Levina, S., exchange reaction between deuterium and hydrogen on nickel, I, 341.

See also Legran, A.

Levine, A. S. See Lubitz, J. A.

Levine, H., and Bodansky, M., determination of alcohol in body fluids, III, 235. Levine, J. See Matchett, J. R.

Levine, Max. See Mitchell, N. B.

Levine, Michael, and Bergmann, H., cytology of 1:2:5:6-dibenzanthracene mouse tumours, III, 112.

Levine, M. D. See Mackenzie, C. G. Levine, M. J., exposure of tuberculinsensitive children to exogenous infection with human tubercle bacilli, III, 1073.

Levine, N. D., effect of food intake on dimensions of Balantidium from swine in culture, III, 391.

and Morrill, C. C., chorazol-black E, connective tissue stain, III, 957.

Levine, P., preservation of specific anti-M and anti-N agglutinins with toluol, III, 417.

and Katzin, E. M., isoimmunisation in pregnancy and varieties of isoagglutinins observed, III, 552.

Katzin, E. M., and Burnham, L., atypical warm isoagglutinins, III, 552. Isoimmunisation in pregnancy and erythroblastosis fœtalis, III, 828.

and Polayes, S. H., atypical hæmolysin in pregnancy, III, 961.

Levine, R. See Soskin, S.

Leviue, S. Z., Gordon, H. H., and Marples, E., defect in metabolism of tyrosine and phenylalanine in premature infants, III, 893.

Levine, V. E. See Sachs, A.

Levinson, L., Welsh, J. H., and Abramowitz, A. A., effect of hypophysectomy on diurnal rhythm of spontaneous activity in rat, III, 757.

Levinson, S. A. See Klein, R. I. Levinson, S. O., Rubovits, F. E., and Necheles, H., human serum transfusions, III, 245.

Levitson, L. R. See Hoyne, A. L. Levitsch, V., damping of waves by surface-

active substances. I. and II., I, 411. Levitt, J., and Siminovitch, D., relation between frost-resistance and physical state of protoplasm. I., Ill, 233. See also Siminovitch, D.

Levitt, J. M., and Blonstein, M., toxic amblyopia resulting from sodium diphenylhydantoinate, III, 530.

Levitt, R. O. See Volini, I. F.
Levitz, M., Perlman, D., and Bogert,
M. T., spirocyclohexanc-1:1'-indane, its synthesis and properties, II, 126.

Levkoev, I. I., Sveschnikov, N. N., and Durmaschkina, V. V., polymethine dyes of the 3-hydroxythionaphthen series. II. Condensation of anils of 3-hydroxythionaphthen-2-aldehyde and its vinylene homologues with quaternary salts of 1-methylbenzthiazolc, II, 77.

Levschin, V. L., interpreting phenomena of polarised luminescence using linearoscillator model. VII., I, 150

and Tugarinov, V. N., origin of radiation of long and short duration in phosphors with an organic activator, I, 149.

Levtschenko, G. T. See Kritschevski, I. R. Levy, A. M. See Niederl, J. B. Levy, E. See Jones, R. R.

Levy, E. D. See Perlzweig, W. A.

Levy, H. A., and Corey, R. B., crystal structure of dl-alanine, 1, 453.

Lévy, J., biological determination of small quantities of papaverine, III, 911.

and Olszycka, L., effect of hypnotics and acidosis on respiration of brain cells, III, 1051.

Levy, L. See Goldberg, L. Levy, M., and Palmer, A. H., iodometric determination of small quantities of nitrogen without distillation, III, 64. See also Palmer, A. H.

Levy, N. A., arsphenamine encephalopathy, III, 220.

Levy, R. L., drugs in cardiac arrhythmias, III, 294.

Levy, R. M., calculation of partial pressures of binary mixtures, I, 460.

Levy, S., elimination of errors due to unstable excitation conditions in quantitative spectrum analysis, I, 89.

Levy, S. R. See Manly, M. L. Lew, W. See Yuen, D. W. Lewin, J. See Baudouin, A.

Lewis, A., psychiatric aspects of effort syndrome, III, 653.

See also Jones, M.

Lewis, A. A., and Turner, C. W., effect of cestrogens and carcinogenic chemicals in stimulating secretion of mammogenic duct growth factor of anterior pituitary, III, 279.

Lewis, Bernard, and Elbe, G. von, physics of flames and explosions in gases, I, 170. Flame temperature, I, 389.

See also Elbe, G. von, and Heiple, H. R. Lewis, Bransford. See Carroll, G. Lewis, Burton, and Elliott, N., interatomic

distances in cobalt disclenide, I, 196.

Lewis, C. E. See Whitmore, F. C. Lewis, D. T., Macleod constant and its dependence on physico-chemical factors,

Lewis, E. B., unequal crossing over in Drosophila, III, 319.

Lewis, F. M., pressure-regulating apparatus for vacuum systems, I, 391.

Lewis, G. E. See Lepper, H. A., jun. Lewis, G. L., Oesper, P. F., and Smyth, C. P., dipole moments of lead alkyl and phenyl halides, I, 193.

Lewis, G. M. See Wolf, S. Lewis, G. N., Magel, T. T., and Lipkin, D., absorption and re-emission of light by cis- and trans-stilbenes and efficiency of their photochemical isomerisation, I,

Lewis, G. T. See Bruce, A. II. Lewis, H. A. See Leo, S. D. Lewis, H. B. See Abbott, L.  $D_{\cdot,j}un_{\cdot,j}$ Blood, F. R., and Brown, B. H.

Lewis, J. H., automatic pipette and inexpensive pipetting machine, III, 946.

Lewis, J. M., Barenberg, L. H., Greenspan, L., and Greenberg, B., value of C. pertussis vaccine in prevention of whooping cough in child-caring institution, III, 474.

Bodansky, O., Falk, K. G., and McGuire, G., relation of vitamin-A blood level in rat to vitamin-A intake and to liver storage, III, 775.

Lewis, L., vitamin-K, III, 523.

Lewis, L. A. See Hartman, F. A.

Lewis, L. G. See Langworthy, O. R. Lewis, P. M., dangers from non-specific

protein therapy, III, 810. Lewis, R. A., and Koepf, G. F., apparatus for producing constant gas mixtures,

and Tager, M., N4-methyl- and N4-dimethyl-substituted and sulphanilamides: synthesis, and pharmacological and therapeutic properties, III,

See also Engel, L. L., and Thorn, G. W.

Lewis, R. C. See Lewis, R. C., jun.
Lewis, R. C., jun, and Lewis, R. C.,
creatine and creatinine exerction in dystrophia myotonica, III, 498.

Lewisohn, R., Leuchtenberger, C., Leuchtenberger, R., and Laszlo, D., treatment of spontaneous breast adenocarcinomas in mice with extracts of spleen or yeast, III, 589. Fate of spontaneous mammary carcinomas in mice after simple biopsy, III, 888.

Lewy, A., and Leshin, N., functional examination of hearing, Ill, 348.

Lewy, F. H., physiological action of vitamin-B complex, III, 1034.

and Gammon, G. D., influence of sensory systems on spontaneous activity of cerebral cortex, III, 255. See also Elsom, K. O.

Leyda, F. A. Sec McBain, J. W.

Li, C. H., Lyons, W. R., and Evans, H. M., pituitary lactogenic hormone. Comparison of electrophoretic behaviour of lactogenic hormone as prepared from beef and from sheep pituitaries. III. Solubilities of sheep and ox hormones. V. Reactions with iodine. VI. Molecular weight, III, 352, 758, 763.

Simpson, M. E., and Evans, H. M., interstitial cell-stimulating hormone. II. Preparation and physico-chemical properties, III, 98.

See also Fraenkel-Conrat, H. L., and Simpson, M. E.

Li, H. C. See Cheng, L. T.

Li, M. S., influence of calcium phosphate on serum-calcium and -phosphorus, III, Li, N. C. C., and Lo, Y. T., solubility studies. II. Activity product and standard electrode potential of silver iodate from 10° to 35°. III. Ionisation constant of iodic acid at 25°, 30°, and

35°, I, 211. Li, P. K., and Kato, K., determination of blood-pyruvate in vitamin- $B_1$  deficiency, III, 730.

Sec also Kato, K.

Li, R. C., and Anderson, H. H., intravenous toxicity of acetins in dogs and rabbits, III, 918.

Chen, G., and Soong, H. Y., gonadotropic potency of anterior pituitary following adrenalectomy in normal

and gonadectomised rats, III, 1007. S. T., synthesis and physiological properties of  $\beta\beta'$ -dichlorodivinyleyanoarsine, II, 215.

and Sun, C. E., relation between ionic radii, atomic and quantum numbers, and valency, I, 191. See also Sun, C. E., and Tseng, C. L.

Li, T. H., neuromuscular junction. XXII. Neuromuscular transmission in rats on choline-deficient diets, III, 737.

and Ting, Y. C., neuromuscular junction. XXI. Responses of cat muscles to acetylcholine during Wedensky inhibition and post-tetanic facilitation,

Sec also Feng, T. P.

Li, T. P. See King, L. P. Liang, C. C. See Adolph, W. H.

Libby, R. L., photron reflectometer for use with test-tubes, I, 389.

Libby, W. F., chemistry of energetic atoms produced by neutron capture, I, 396.

See also Cornog, R., De Vault, D., and Farber, M.

Liber, A. F., and Lisa, J. R., stromal tumours of choroid plexus, III, 281.

Liberman, A. L. See Balandin, A. A. Liberzon, E. See Dain, B.

Libet, B., Fazekas, J. F., and Himwich, H. E., electrical response of kitten and adult cat brain to cerebral anæmia and analeptics, III, 857.

See also Elliott, K. A. C., and Gerard, R. W.

Libman, J. See Cohen, H. Lichtblau, H., anomalies in mass-spectrography, I, 90.

L.V.; apparatus for oxygen therapy, III, 84.

Lichtenstein, L., and Jaffe, H. L., eosinophilic granuloma of bone, III, 415. See also Jaffe, H. L.

Lichtman, S. S., liver function in hyperthyroidism, with reference to galactose tolerance test, III, 584.

and Bierman, W., treatment of subacute bacterial endocarditis, III, 461.

Lichty, J. A., jun., relation of streptococcic antifibrinolysin to acute rheumatic fever, III, 932.

See also Wedd, A. M.

Lida, E., and Goldberg, I., red blood cell count by photomicrography, III,

See also Morenzi, A. D.

Liebe, S., treatment with low-pressure chamber, III, 339. Efficacy of vitamin- $D_{\bullet}$  in various solvents, III, 376. Incurable rickets, III, 376.

Lieber, E. See Scholnik, S. S. Lieberherr, W., ovalocytosis, III, 324. Lieberman, L. M., Hodes, P. J., and Leopold, S. S., Roentgen therapy of experimental lobar pneumonia in dogs, III, 385.

Lieberman, S. See Noller, C. R.

Liebers, M., Alzheimer's disease with Pick's frontal lobe atrophy, III, 993.

Liebhafsky, H. A. See Gilliam, W. F. Liebmann, J. See Plummer, N.

Liebow, A. A., and Miller, H. C., congenital defects in diaphragm, III, 238. and Tennant, R., mesodermal mixed

tumours of body of the uterus. III. 282.

Ward, J. McF., and Tennant, R., effects of potassium deficiency on tumourbearing mice, III, 772. See also Tennant, R.

Lienhart, R., duration of pregnancy in hare, III, 268.

Lieou, Y. C. See Raynal, J. H. Liepatov, S. M., nature of solutions of lyophilic colloids, I, 44.

and Schulman, M. S., dielectric constant of fractions of lypophilic colloids. I. Dielectric constant of gelatin fractions. I, 45.

See also Lapin, P. M., and Liepatova. G, V.

Liepatova, G. V., and Liepatov, S. M., structure and solvation of cellulose nitrate particles, I, 44.

Liere, E. J. van. See under Van Liere, E. J.

Lifschitz, S., discreteness of sensations, III. 666.

Light, G.A. See Livingstone, H.M.Lightbody, H. D., and Kleinman, variations in arginase activity, in livers

of white rats, caused by fasting, III, 584.

See also Calvery, H.O.Ligon, E.W.,jun. See Werle, J.M.Lih, B.J. See Goodman, L.

Lihl, F., intensity distribution in Debyc-Scherrer lines, I, 153.

Liljestrand, G. See Euler, U. S. von.

Lillevik, H. A., and Sandstrom, W. M.,

origin of humin formed by acid hydrolysis of proteins. IX. Hydrolysis in presence of djenkolie and thiazolidine-4-carboxylic acids, II, 208.

Lillie, R. D., effect of cH of formaldehyde on subsequent staining, III, 69. Romanowsky staining with buffered solutions. III., II1, 243.

Daft, F. S., and Sebrell, W. H., cirrhosis of liver in rats on deficient diet and effect of alcohol, III, 1018.

See also Smith, M. I.

Lilly, J. C. See Borsook, H. Lim, K. T. See Snyder, F. F.

Limarzi, L. R. See Paul, J. T.

Limaye, D. B., and Joshi, M. C., syntheses of 2-acylresorcinols by the "nidhon" process. VII. Use of 7-hydroxycoumarin, II, 365.

and Kulkarni, K. M., effect of substitution in 7-hydroxycoumarin on elimination of the pyrone ring by caustic alkali, II, 372.

and Panse, T. B., furocoumarone group.
I. Synthesis of 3:3'-dimethyl-6':7'furocoumarone, II, 374.

Shenolikar, G. S., and Talwalkar, S. S., 5-hydroxybenzopyrone group. III. 5-Hydroxy-2:3-dimethyl- and 5-hydroxy-2-methyl-3-ethyl-chromone,

See also Kelkar, G. R., and Limaye, S. D. .

Limaye, D. G., laboratory tests with water-bearing capacity on trap and associated recent rocks in Decean and Konkan areas, I, 183.

Limaye, S. D., and Limaye, D. B., extension of the "nidhon" process for the syntheses of 2-acylresorcinols to 2-acyl-4-alkylresorcinols. I. 2-Acetyl-4-ethylresorcinol, II, 365.

Limper, E., electrocardiogram in pyloric spasm, III, 334.

Lin, H. A. C., treatment of gonococcal vulvo-vaginitis by æstrogenic suppositories, III, 441. See also Lu, C. S.

Lin, I., [laboratory] hood, I, 132. Lin, Y. T. See Wang, T. H.

Lincoln, R. M., Carney, A. S., and Wagner, E. C., semi-micro-determination of sulphur in organic compounds, II, 235. Lind, C. J. See Wyss, O.

Lind, S. C., chemistry within the atom, I, 3.

Lindahl, P. E. See Holter, H.
Lindberg, L. See Oliver, J.
Lindblom, K., early roentgen signs in rickets, III, 28.

Lindemann, Felke, and Schleiff, average hospitalisation of male patients with gonorrhœa [and sulphonamide treatment], III, 34. Linder, G. C., effect of rickets and ergosterol

on brain- and liver-calcium of young

rats, III, 287.

Linderstrøm-Lang, K., distribution of enzymes in tissue and cells, III, 532.

and Jacobsen, C. F., properties of 2-methylthiazoline and their relation to protein problem, II, 115.

Lindgren, G. See Gisselsson, L. Lindner, E., and Katz, L. N., action of drugs on the calibre of coronary vessels, 111, 911.

Lindner, R. C., effects of indolyl- and naphthyl-acetic acids on development of buds and roots in horseradish, III, 402. Regeneration of horseradish root, III, 634.

Lindsay, A. J., and Shennan, R. J., quinaldinie acid as a reagent for separation of copper and cadmium, I, 57.

Lindsay, G. A., and Hoyt, H. C., lattice constants of cerussite, I, 61.

Lindsay, J. W., Rice, E. C., and Selinger, M. A., treatment of meningitis due to

Hæmophilus influenzæ, III, 785. Rice, E. C., Selinger, M. A., and Robins, L., Waterhouse-Friederichsen syn-

drome, III, 348. Lindskog, G. E., and Spicer, A. D., lung volume under surgical anæsthesia; effect of avertin, III, 980.

Lindsley, C. H. See Smith, Des. Lindstrom, H. V., and Sandstrom, W. M., sulphur in proteins. VI. Alkaline de-

composition of cysteine, II, 188. Linegar, C. R. Sec Koppanyi, T.

Lineweaver, H., and Hoover, S. R., comparison of action of crystalline papain on native and urea-denatured proteins, III, 303.

Lingafelter, E. C., relative strengths of acids and bases, I, 414.

Lingane, J. J., and Davis, O. L., polarographic determination of vitamin-B factors, III, 373.

and Kerlinger, H., condenser to reduce galvanometer oscillations in polarographic measurements, with particular application to compensation method of measuring small diffusion currents, I, 131.

Lingane, J. J., and Kerlinger, H., polarographic determination of nickel and cobalt; simultaneous determination in presence of iron, copper, chromium, and manganese, and determination of small amounts of nickel in cobalt compounds, I, 176.

Lingenfelter, G. P., and Daniels, B. T. tellurite reaction [for diphtheria], III, 1069.

Linggood, F. V. See Barr, M.

Lingley, J. R., Gall, E. A., and Hilcken, J.A., comparative experimental studies of 200- and 1000-kilovolt Roentgen rays: biological effects on bone marrow of albino rat, III, 243.

See also Gall, E. A. Link, G. K. K., Eggers, V., and Moulton, J. E., Avena colcoptile assay of ether extracts of aphids and their hosts, III, 818.

See also Moulton, J. E.

Link, K. P. See Campbell, H. A., Huebner, C. F., Moore, S., and Stahmann, M. A.

Linnell, W. H., and Shaikmahamud, H. S., preparation of stilbene derivatives. II. Unsymmetrical stilbenes, II, 193; III, 509.

See also Hartley, F.

Linnett, J. W., relation between potential energy and interatomic distance in diatomie molecules, I, 25. Force constants of carbon-carbon bonds, I, 401.

Linneweh, F., early diagnosis of congenital hypothyroidism, III, 436.

Linnik, J. A., titrations with a silk fibre, I,

Linser, H., determining [plant] growthpromoting substances. II. from plant material, III, 403. II. Extraction

Linstead, R. P., Rutenberg, A., Dauben, W. G., and Evans, W. L., stable form of sucrose octa-acetate, II, 212.

Thomas, S. L. S., and Michaelis, K. A. O., dehydrogenation. II. Elimination and migration of methyl groups from quaternary carbon atoms during catalytic dehydrogenation, II, 7.

Linthieum, F. H., nystamography [recording of nystagmus], III, 12. Linton, E. P., Holder, C. H., and Bigelow,

H. E., oxidation of 4-nitro-4'-hydroxyazobenzene and related compounds with hydrogen peroxide, II, 221.

Lintz, R. M., toxic reactions with gold salts in treatment of rheumatoid

arthritis, III, 1055.

Lions, F., and Ritchie, E., direct synthesis of 1:2:4:5-tetra-substituted iminazoles, II, 176. Synthesis of nornicotyrine and of its oxygen analogue, II, 234. See also Harradence, (Miss) R. H.

Lipetz, B., treatment of schizophrenia by nitrogen inhalation, III, 256.

Lipkin, D. See Lewis, G. N.

Lipkin, M. R., and Kurtz, S. S., jun., temperature coefficient of density and refractive index for hydrocarbons in the liquid state, I, 295.

See also Kurtz, S. S., jun. Lipkind, M. K. See Pett, L. B.

Lipman, C. B., and McLees, E., dissociation in Azotobacter chroococcum (Beijerinck), III, 708. Sulphur-oxidising bacteria from a coprolite, III, 708.

Lipmann, F., catalysis by peroxidase of oxidation of p-aminobenzoic acid and inhibition by sulphanilamide, III, 703. Lippelt, H. See Mohr, W.

Lippincott, S. B., β-dioximes and trialkylisooxazoles from nitroparaffins, II, 1.

Lippross, O., disturbances in conducting system of heart due to salicylic acid, III, 43.

Lipschütz, A., spontaneous fibromyoma in female guinea-pig, III, 1028.

Bellolio, P., Chaume, J., and Vargas, L., jun., comparative conjunctive tumorigenic action of three different esters of œstradiol, III, 578.

Egana, E., Szabo, I., and Lecannelier, S., zoological specificity of tumoral reaction of estrogens in rats, III, 578.

Iglesias, R., and Vargas, L., jun., uterine and extra-uterine localisations of experimental fibroids induced in guinea-pig by prolonged administration of cestrogens, III, 356.
Rodriguez, F., and Vargas, L., jun.,

continuous and discontinuous treatment with œstrogens in experimental tumorigenesis, III, 578.

and Vargas, L., jun., prevention of experimental uterine and extra-uterine fibroids by testosterone and progesterone, III, 579.

Vargas, L., jun., Baeza-Rosales, H., and Baeza-Herrera, H., 17-monocaprylic ester of estradiol, a highly active tumorigenic æstrogen, III, 578.

Lipschutz, E. W., and Feder, I. A., cholagogue and chloretic effects of bile acids as compared with oleic acid, III, 883.

See also Finkelstein, R.

Lipscomb, A. Sec Rigdon, R. H. Lipsius, S. T. See Arnold, A.

Lipson, H., application of X-rays to study of alloys, 1, 107. and Petch, N. J., crystal structure of

cementite, I, 31.

and Wilson, A. J. C., deviation of lattice spacings from Debye-Scherrer photographs, I, 348.

See also Edwards, O. S., and Wilson, A.J.C.

Lipson, M., examination of urine of sheep dosed with phenothiazine, III, 124.

and Gordon, H. McL., passage of phenothiazine through the alimentary canal of the sheep, III, 528.

Lipton, M. A., and Elvehjem, C. A., activation of cocarboxylase by thiamin, III, 301.

See also Wagner, J. R.

Lisa, J. R., and Brown, C. R., arteriolar disease of heart, III, 973.

See also Hart, J. F., Liber, A. F., Royster, C. L., and Whittemore, W. L. Lischer, C. F. See Martin, G. J. Lisle, E. B., determination of blood-urea,

III, 839.

Lisovskaja, N. N. See Fridman, S. G. Lissner, L. See Rappaport, F.

Lissovski, L. See Chaikin, S.

Lissovski, P., charge on aërosol particles in a dipolar ionic atmosphere, I, 374.

List, C. F. See Foa, P. P.
Lister, M. W., heats of organic reactions. X. Heats of bromination of cyclic olefines, I, 169.

and Sutton, L. E., investigation by electron diffraction of structures of tetrahalides, I, 364. Investigation by electron diffraction of dihalides of cadmium, tin, and lead, I, 366.

Litchfield, H. R., treatment of acute obstructive infections of larynx, trachea,

and bronchi, III, 847.

Litchfield, H.R., and Beilly, J.S., asphyxia

of newborn, III, 497.
Litchfield, J. T., jun., White, H. F., and
Marshall, E. K., jun., action of neoprontosil in streptococcus infections in mice, III, 904.

See also Marshall, E. K., jun.

Litmanowitsch, M. See Halban, H. von. Litter, L., hospital study of poliomyelitis, III, 858.

Little, C. C., genetics of spontaneous tumour incidence, III, 1025.

See also Woolley, G.

Little, J. M., and Bennett, W. C., acetylcholine hydrolysis by frog's sartorius muscle, III, 657.

Little, R. B., Dubos, R. J., and Hotchkiss, R. D., gramicidin, novoxil, and acriflavine in treatment of chronic streptococcal mastitis, 111, 1048.

Little, R. D., stain fading in various histologic mounting media, III, 827. Litvak, A. M. See Press, E., and Tabor,

S. H.

Litvan, F. See Robinson, (Sir) R. Litvinov, M. S., ammoniates of cobalt fluoride, I, 385.

Litvinov, N. D., pressure of saturated vapour of liquids and binary liquid mixtures. III., I, 460. Liu, H. C., ya tan tzo (kho-sam) in

intestinal amœbiasis, III, 787.

Liu, S. C., and Wu, H., recovery of antigen and antibody from immune precipitate, III, 397. Solubility of immune precipitates, III, 632.

Liu, S. H., Ch'in, K. Y., Chu, H. I., and Pai, H. C., osteomalacia: clinical, metabolic, and pathological studies of case with right-sided cardiac hypertrophy from thoracic deformities and vitamin- $B_1$  deficiency, III, 1038.

Chu, H. I., Hsu, H. C., Chao, H. C., and Cheu, D. H., calcium and phosphorus metabolism in osteomalacia; pathogenetic rôle of pregnancy and relative importance of calcium and vitamin-D supply, III, 1038.

Chu, H. I., Yu, T. F., Hsu, H. C., and Cheng, T. Y., anæmia in vitamin-C deficiency and its response to iron, III, 829.

See also Chu, H. I.

Liu, T. F. See Chang, H. C. Liu, Y. P., and Chin, T. S., nitration of p-nitrobenzoic acid in sulphuric acid solution, II, 224.

Liubimova, M. N., and Pevsner, D., hydrolysis of adenosinetriphosphoric acid by myosin; production of adenosinediphosphoric acid, III, 923.

and Schipalov, M. S., ultra-violet absorption spectrum of myosin, I, 320.

Liubovitsch, E. N., effect of hyperthermy on electrolyto composition of brain, III. 744.

Liulka, V. V. See Plotnikov, V. A. Lium, R. See Wright, R. D. Livanova, O. See Balandin, A. A.

Livengood, H. R. See Senerchia, F. F. Livingood, J. J. See Cohn, E. J., and

Seaborg, G. T.

Livingston, A. E. See Fellows, E. J.
Livingston, R., and Hurd, F., photooxidation of iodide ion sensitised by eosin, I, 275.

See also Franck, J., and Hurd, F. Livingston, R. S., and Wright, B. T., (d, 2n) reaction in copper, I, 2.

Livingston, W. K., irritative nerve lesions, III, 983. Surgery of the autonomic nervous system, III, 998.

Livingstone, H. M., Light, G. A., Heidrick, A. F., and Kable, V. N., divinyl ether anæsthesia, III, 294. Livschitz, N. N., laws of binocular colour

mixture, III, 346.

Lloyd, D. J., molecular structure of protein fibres, II, 343.

Lloyd, D. P. C., activity in neurons of bulbospinal correlation system, III, 740. Direct central inhibitory action of dromically conducted impulses, III, 983.

Lloyd, O. See Hardwick, C. Lloyd, V. E., and Erskine, D., sulphathiazole and sulphamethylthiazole in gonorrhœa, III, 34.

Lo, Y. T. See Li, N. C. C.

Lobaschov, M. E., physiological discontinuance of ontogenesis and production of directed modifications, III, 548. Action of X-rays and heat shocks on development variation in Drosophila

melanguaster, III, 640.

Lobunetz, M. M., reduction of nitrocompounds with liquid zinc amalgam, for analytical purposes, II, 24. Liquid zinc amalgam method as applied to analysis of nitrobenzaldehydes, II, 24.

and Gortinskaja, E. N., iodometric determination of nitrosobenzene, II,

Localio, S. A., Schwartz, M. S., and Gannon, C. F., urinary-fæcal coproporphyrin ratio in liver disease, III, 364.

Locatelli, A. M., and Bowden, S., activity of sulphanilamide in various media, Ill,

Lochhead, A. G. See Howard, N. J. Lochte, H. L. See Crouch, W. and Shive, B.

Lock, F. R. See Weinstein, B. B.

Locket, A. See Main, E. R. Lockett, P. See Janossy, L.

Lockey, S. D., adrenal gland and lactose in treatment of major allergic disorders in childhood, III, 867.

Lockhart, E. E., and Potter, V. R., mechanism of hydrogen transport in animal tissues. II. Reactions involving cytochrome c, III, 301.

Lockhead, M. S. See Perry, I. H.

Locks, M. O. See Kissin, B. Lockwood, J. E. See Griffith, F. R., jun.,

Lockwood, J. S., sulphanilamide in surgical infections, III, 291.

See also Ravdin, I. S.

Lockwood, W. H. See Lemberg, R., and  $\mathbf{Mellor,}\ D.\ P.$ 

Loeb, E. N. See Seegal, B. C.

Loeb, L., hormones in origin of cancer, III, 369.

Loeb, L. B., and Meek, J. M., mechanism of spark discharge in air at atmospheric pressure, I. and II., I, 74, 139. Loeb, R. F., adrenal insufficiency, III, 94.

Adrenal cortex insufficiency, III, 1005. Loebenstein, W. V. See Russell, W. W.

Löbl, J., effect of solvent on antirachitic activity of vitamin-D, III, 779. Löf, J. L. C. See Overbeck, W. P. Loeffler, L., pulmonary embolism and infarction, III, 339.

Loeffler, M.K. See Fardon, J.C. Loeffler, O.H. See Gibson, R.E.

Löffler, W., use of sulphapyridine and sulphathiazole in treatment of pneumonia, III, 34.

Hegglin, R., and Maier, C., sorum- and chemo-therapy of lobar pneumonia, III, 214.

Löhe,  $\hat{H}$ ., and Wawersig, R., action of various uleron derivatives on gonorrhoea. III, 34.

Loehwing, W. F., mineral nutrients in relation to flower development, III, 710. Löper, B., massive dose treatment with vitamin-D in rickets, III, 120.

Loeschke, A., renal rickets, III, 365. Loeschke, E., and Schwartzer, K., foetal polycythæmia, III, 324.

Loeser, L. H. See Schotland, C. E. Loevski, M. L. Sce Piankov, V. A.

Loewe, S., cathartic effectiveness of parenterally administered phthalein laxatives in monkey, III, 912.

and Modell, W., action of chemical components of cannabis extracts, III, 914.

See also Adams, R.

Loewenberg, S. A., valuable sign in diagnosis of functional aortic insufficiency, III,

Loewenstein, A., glass membranes in eye. II., III, 258. Retinopathia centralis angiospastica (angioneurotica) and scrosa allergica, and their relation to detachment of retina, III, 748. Lipoid (?) droplets in episclera as regular change with age, III, 862.

and Steel, J., melanosis fundi with bilateral congenital group pigmentation

of the central area, III, 865.

Löwenstein, O., and Sand, A., activity of semicircular canals of elasmobranch labyrinth, III, 261.

Löwenstein, W., and Neumann, H.,

 $B_1$ -hypovitaminosis in chronic colitis, III, 583.

Lofdahl, L.J. See Harris, E.E.

Loistrom, J. A., elimination of intestinal gas shadows in roentgenography [by pitressin], III, 362.

Loftis, E. L., Recklinghausen's disease in identical twins, III, 719.

Logan, M.A. See Vanderlaan, J.E.

Loh, G. L. See MacGregor, R. G. S.
Lohman, S. W., and Frye, J. C., geology
and ground-water resources of "Equus
Beds" area in south central Kansas, I,

Lohmann, E., insulin and cardiazol shock in rabbits, III, 990.

Lojander, W., effect of temperature and light on 2:6-dichlorophenolindophenol solutions, II, 359. Vitamin-A content of seal oil, III, 684.

Lolli, G. See Haggard, H. W.

Loman, J., sugar and oxygen metabolism of brain during and after insulin hypoglycæmia, III, 666.

Rinkel, M., and Myerson, A., intracranial and peripheral vascular effects of nicotinic acid, III, 976.

Lombard, C. F. See Leser, A. J., and Thienes, C. H.

Lombroso, U., effect of atropine and cocaine on response of dog to acetylcholine, III, 420. Effect of F. 933 and cocaine on hypertension produced in atropinised animals by acetylcholine, III, 562. Transfusion of normal dog with blood from atropinised dog rendered hypertensive with acetylcholine, III, 61â.

Londe, S., and Probstein, J. G., hippuric acid liver function test in children, III, 584.

See also Probstein, J. G.

London, A. H. See Sirlin, E. M.

London, H., high-frequency resistance of superconducting tin, I, 105.

London, M., reagin content of cerebrospinal fluid, III, 810.

and Davy, E. D., use of emulsified extract in treatment of ragweed pollinosis, III, 812.

London, S. B. See Riseman, J. E. F.

Long, B. See Richardson, L. R. Long, E. M. See Hamner, K. C.

Long, E. R., constitution and related factors in resistance to tuberculosis, III,

Long, F. A., exchange of oxalates with complex trioxalate ions of tervalent metals, I, 343.

and Nutting, G. C., application of Gibbs adsorption equation to solutions of paraffin-chain salts, I, 206.

See also Nutting, G. C. Long, J. H., growth in vitro of ovarian

germinal epithelium, III, 321. Long, L., jun., and Fieser, L. F., ozonisation

of hydrindene, II, 7. Long, L. M., and Henze, H. R., synthesis of

ketone derivatives of diphenyl by Friedel-Crafts reaction, II, 293.

See also Henze, H. R.

Long, M. E., nuclear and cytoplasmic relations in Scyllina cyanipes, III, 159. Long, P. II., and Haviland, J. W., pneu-

monia with reference to chemo- and sero-therapy, III, 609. Haviland, J. W., Edwards, L. B., and

Bliss, É. A., toxicity of sulphonamides, III, 908.

Long, IV., use of glandular extracts in functional uterine bleeding, III, 874.

Long, W. E. See Schoch, A. G.

Longacre, A. B., Zaitzev-Jern, H., and Meleney, F. L., treatment of staphylococcus septicæmia with bacteriophage, III, 475.

Longenecker, H. E., Gavin, G., and McHenry, E. W., relation of vitamin-B complex and liver and pancreas extracts to fat synthesis, III, 688. See also Kelsey, F. E.

Longland, C. J., and Murray, J., recovery from crush syndrome [treatment], III,

Longley, B.J., Clausen, N.M., Davis, F.A., Nesbit, M. E., and Tatum, A. L., damage to optic tract produced in monkeys by tryparsamide, III, 916.

Clausen, N. M., and Tatum, A. L. comparison of response of yaws and syphilis in the rabbit to therapy with mapharsen and neoarsphenamine, III, 296.

Longley, L. P. See Miller, M. Longley, R. L., jun. See Amundsen, L. H.Longo, B., determination of iodine in organic compounds with the calorimetric bomb. I. and II., II, 344.

Longo, E., progressive muscular dystrophy, III, 982.

Longsworth, L. G., Cannon, R. K., and Macinnes, D. A., electrophoretic study of proteins of egg white, I, 46.

Longtin, B., Randall, M., and Weber, H., change of index of refraction with concentration in solutions of water and n-butyl alcohol at 30°, I, 162. Diffusion of water into n-butyl alcohol at 30°, I, 162.

Longwood, O. W., the goitre patient, III,

Lonsdale, K., diffuse reflexions on Laue photographs, I, 102. Molecular anisotropy of carbamide, and of related compounds, I, 156. Diffuse X-ray reflexions, I, 195.
Robertson, J. M., and Woodward, L.,

structure and molecular anisotropy of sorbic acid, CHMe.CH.CH.CH.CO2H,

and Smith, H., X-ray crystal photography at low temperatures, I, 348. Secondary diffraction effect on Laue photographs of diamond, I, 366. Diffuse X-ray diffraction from two types of diamond, I, 402. Temperature study of diffuse X-ray diffraction by diamonds, I, 402.

See also Jahn, H. A., and Knaggs, I. E. Loofbourow, J. R., Dwyer, C. M., and Gronin, A. G., proliferation-promoting intercellular hormones. II. Evidence for their production by living cells as a response to injury, III, 707.

Englert, M. E., and Dwyer, C. M., increased yield of nucleic acid-like substances from irradiated yeast, III, 924.

and Joyce, L., increased ultra-violet absorption of cells following irradiation with ultra-violet light, III, 1060. See also Stimson, (Miss) M. M.

Looney, J. M., effect of pregnant mare serum on spermatogenesis in man, III, 102. and Romanoff, E. B., effect of testo-sterone on serum-lipins, III, 190.

Loose, F. See Siebert, W. J. Loosjes, R., and Domingo, W. R., preparation of "absolute water" with the "Allassions," I, 55.

López de Azcona, J. M., carbon arc spectra of europium, gadolinium, and samarium in small quantities, I, 285.

Lopéz Garcia, A. See Castex, M. R. Lora Tamayo, W., and Ayestarán, D., synthesis with dienes: conjugation of a double bond with an aromatic nucleus. I. Condensation of anethole with malcic anhydride, II, 134.

Lorber, V., Kabat, H., and Welte, E. J., nervous factor in traumatic shock, III, 562.

Loreh, A. E., electrochemical polarisation; measuring rates of polarising reactions; diffusion process, I, 270.

Lorch, W., determining sites and conditions of colonisation, 1, 492.

Lord, J. W., and Andrus, W. DeW., plasma-prothrombin levels after thyroidectomy, III, 833.

Andrus, W. DeW., and Moore, R. A., metabolism of vitamin-K and rôle of liver in production of prothrombin in animals, III, 75.

See also Andrus, IV. De IV.

Lorenz, E., Shimkin, M. B., and Stewart, H. L., preparation of dispersions of carcinogenic hydrocarbons and hormones with aid of dioetyl ester of sodium sulphosuccinate (aerosol O.T.), III, 589.

and Stewart, H. L., intestinal carcinoma and other lesions in mice following oral administration of 1:2:5:6-dibenzanthracene and 20-methylcholanthrene, III, 276. Squamous cell carcinoma and other lesions of fore-stomach in mice, following oral administration of 20-methylcholanthrene and 1:2:5:6dibenzanthracene, III, 368.

Lorenz, F. W., egg deterioration due to ingestion by hens of malvaceous materials, III, 221. and Taylor, L. W., inheritance of an

albumin quality characteristic of chicken eggs, III, 955.

See also Chaikoff, I. L.

Lorenz, H., anococcygeal cyst, III, 823.

Lorenz, M. See Jones, K. K. Lorenz, W. F., rapid flocculation test for syphilis adapted to cerebrospinal fluid, III, 54.

Lorenze, E. J. See Kerley, C. G. Lortie, L., and Demers, P., physicochemical studies on alkali carbonates. II. Calculation of activity coefficients of sodium and potassium carbonates in aqueous solution, I, 114.

Losev, I. P., and Akutin, M. S., products of condensation of phenol with

benzaldehyde. I., II, 95. and Kotrelev, V. N., products of condensation of phenol with benzaldehyde.

II., II, 95.
Losev, O. V., spectral effect in a barrierlayer photo-effect of carborundum single crystals and determination of long wave-length limit, I, 193. Spectral distribution of barrier-layer photo-effect with carborundum single crystals, I, 193.

Lothian, G. F., photo-electric fluorimeter, I, 484.

Lothrop, G, N. See Sohler, T. P. Lothrop, W. C., diphenylene, II, 247.

Lotmar, W., and Nitschmann, H., measure-

ments of dispersion of light by skim milk, I, 292.

Lotwin, G. See Bryan, A. H. Lotze, J. G., and Yiengst, M. J., apparatus for measuring microscopic objects, III, 820.

Loubatières, A., liver-glycogen in "pituitary diabetic" dog, III, 187.

Loucks, H. H., and Chin, K. Y., neurocytoma of kidney, III, 681.

Loudon, J. D., reactions of 2:6-dichloro-2:4:6-trihalogeno-nitrobenzenes with a mercaptide reagent, II, 41. See also Holmes, C. W. N

Lough, S. A., Perilstein, W. L., Heinen, H. J., and Carter, L. W., cystinuria; metabolism of cystine, cysteine, methionine, homocystine, and S-carboxy-methylcysteine, III, 686.

Loughlin, E. H., Spitz, S. H., and Bennett, R. H., non-traumatising method of inducing pneumococcic infection in albino rats, III, 802.

See also Spitz, S. H.

Loughridge, D. H., and Gast, P. F., air mass effect on cosmic-ray intensity, 1, 3.

See also Gast, P. F. Lourau, M., "zonal" phenomena in specific hæmolysis, III, 416.

Love, F. M. See Bronfenbrenner, J. Love, J. G. See Woltman, H. W.

Love, W. T., biotite gneisses of Grenville

series near Kingston, I, 135.

Lovelace, W. R. See Boothby, W. M.

Lovelace, W. R., jun., transportation of patients by airplanes, III, 656.

Lovell, A. C. B. See Blackett, P. M. S.

Lovell, E. L., and Hibbert, H., lignin and related compounds. LII. Fractionation of lignin and other polymerides,

II, 371. See also Patterson, R. F. Lovell, R., toxin of Corynebacterium pyogenes, III, 627.

Loveman, A. B. See Schwartz, Louis.

Lovering, T. S., origin of tungsten ores of Boulder Co., Colorado, I, 490.

Lowe, E. R., Gray, J. S., and Ivy, A. C., is a duodenal hormone involved in carbohydrate metabolism? Ill, 13.

Lowell, F. C. See Finland, M., and

Strauss, E.

Lowen, I.S., lifetimes of nuclear levels with respect to electric multiple radiation, I, 317.

Lowenhaupt, E. See Gerstley, J. R. Lowenstein, L. See Kaufmann, J. Lowndes, A. G., weighing living marine animals, III, 820.

and Panikkar, N. K., changes in water content of lobster (Homarus vulgaris, M.-Edw.) during moult, III, 367.

Lowndes, J., Macara, T. J. R., and Plimmer, R. II. A., analysis of proteins. XIII. Caseo-phosphopeptone, II,

Lowry, F. C., and Burn, C. G., spontaneous rupture of posterior papillary muscle of

heart, III, 561.

Lowry, O. H., quartz fibre balance, I, 391.

Gilligan, D. R., and Katersky, E. M., determination of collagen and elastin in tissues, III, 716.

Lowther, F. L., study of Galago senegalensis moholi in captivity, including birth and postnatal development of twins, III, 320. Feeding and grooming habits of Galago, III, 320.

Lowy, A. See Epelberg, J., and Van Meter, C. T.

Loy, H. W., jun., De Witt, J. B., and Knudsen, L. F., chick method for assay of vitamin-D. I. Relative accuracy of group and individual ashing procedures and relationship of chick weight to per cent. of bone ash. II. Modified basal ration, II, 457, 779.

Lozovoi, A. V., and Senjavin, S. A., velocity of decomposition of hydrocarbons during destructive hydrogenation. I. Naphthalene, tetra- and deca-hydronaphthalene, and dodecane, I, 421.

See also Bobischev, V. I.

Lu, C. S., total 24-hour urinary excretion of estrogens in normal and toxemic pregnancies, III, 578.

and Lin, H. A. C., [mammotropin in] post-partum urine, III, 575.

Lu, G. D., and Needham, D. M., adenylic deaminase in avitaminosis-B1 and starvation, III, 456.

Lu, H., Newitt, D. M., and Ruhemann, M., two-phase equilibrium in binary and ternary systems. IV. System ethanepropylene, I, 468.

Lu, J. P. See Chung, H. L.
Lu, S. S., and Chang, Y. L., structure of vitreous silica, I, 293. Accurate evaluation of lattice spacings from back-reflexion powder photographs, I, 365. Lu, T. W. See Wang, G. H.

Lubarski, G. D., and Kagan, M. J. [with Natanson, G. L.], vanadium oxides as hydrogenation and dehydrogenation catalysts, II, 246.

Lubinski, H., and Benjamin, B., effect of vernix caseosa on bacteria, 111. 390.

Lubitz, J. A., Levine, A. S., and Fellers, C. R., toxicity of red squill, Ill, Lucas, A. M., cytology of fox encephalitis and effects of centrifugation on intranuclear inclusions, III, 312.

Lucas, C. C., and Beveridge, J. M. R., analysis of hair keratin. 1. Removal of cystine from keratin hydrolysates, III, 110.

Lucas, G. H. W. See Brown, W. E.

Lucas, H. J., Schlatter, M. J., and Jones, R. C., isomeric  $\beta\gamma$ -epoxypentanes, II,

Lucas, M. See King, E. S. Lucasse, W. W. See Cadbury, W. E., jun., and Meldrum, W. B.

Lucchesi, P. F., and Gildersleeve, N., neoarsphenamine in anthrax, III, 789.

Luchi, A. L., diabetic diets and eating habits of nationalities, III, 773.

Lucia, S. P., and Aggeler, P. M., influence of liver damage on plasma-prothrombin concentration and response to vitamin-K, 111, 491.

Luck, J. M., Nimmo, C., and Alvarez-Tostado, C., electrolytic splitting of liver-albumin, III, 794.

See also Ballou, G. A., and Crismon,

Lucke, B., and Schlumberger, H., effect of temperature on growth of frog carcinoma. I. Direct microscopic observations on living intraocular transplants, III, 452. Heterotransplantation of frog carcinoma; character of growth in eyes of alien species, III, 452.

Luckett, (Miss) S., and Smith, F., constitution of pectic acid. I. Methylation of pectic acid, and isolation of methyl ester of 2:3-dimethylmethylgalacturonoside. II. Synthesis of methyl ester of 2:3:5-trimethyl-β-methylgalacturonoside. III. Hydrolysis of methyl ester of methylated pectic acid and isolation of methyl ester of 2:3-dimethylβ-methylgalactopyruronoside, II, 31, 33. Luckey, F. See Robinson, C. S.

Luckiesh, M., and Moss, F. K., functions of relative accommodation, III, 504. Characteristics of sensitometric refrac-tion, III, 568. Visibility and seeing, III,

Ludden, J. B., Bruger, M., and Wright, I. S. effect of testosterone propionate and estradiol dipropionate on cholesterol content of blood and aorta of rabbit,

Flexner, J., and Wright, I. S., ascorbic acid deficiency in gastric diseases, III, 1037.

See also Member, S.

Luder, W. F. See Vernon, A. A. Ludford, R. J. See Emmens, C. W.

Lúdin, M., differential diagnosis of rare skeletal diseases, III, 317.

Ludloff, H. F., simultaneous determination of adiabatic and isothermal elasticities, I, 106.

Ludueña, F. P., action of hypertensin on plain muscle, III, 172. Effect of sympathicomimetic amines on retractor penis and blood pressure of dog; sensitisation by ephedrine, III, 215. Modifications produced by cocaine on effect of sympathicomimetic amines on blood pressure and retractor penis in dog, III, 786.

See also De Meio, R. H.

Ludvigh, E., effect of reduced contrast on visual acuity as measured with Snellen test letters, III, 505.

Lndwig, C. A. See Allison, F. E.

Ludwig, F., influence of water-soluble vitamins on fertilisation and cell division of Echinoidea ovum, III, 197. Action of vitamin-B and -C on chickens. III, 209.

and Ries, J. von, action of short waves on metamorphosis of tadpoles, III, 299.

Lü, Y. M. See Chang, H. C.

Lübbers, P., leukæmic polyblastic reticuloendotheliosis, III, 416.

Luedde, W. H., what subluxated lenses reveal about mechanism of accommodation, III, 568.

Lüdin, M., differential diagnosis of rare skeletal diseases, III, 238.

Lüscher, E., regulatory mechanisms of ear, III, 570.

Lüthi, H., vitamin-C exerction of healthy and sick children, III, 778.

Lüthy, F. See Hotz, H. W. Luetscher, J. A., jun., electrophoretic analysis of plasma-proteins and serous effusions, III, 330.

See also Cohn, E. J.

Lugg, J. W. H., tissue proteins of cryptogams; amide, tyrosine, and trypto-phan, III, 314. Pasture-proteins, III,

Luisada, A. See Mautner, H. Luke, W. W. See Crowell, W. R. Lukens, F. D. W., and Dohan, F. C., morphological and functional recovery of pancreatic islands in diabetic cats treated with insulin, III, 96.

See also Dohan, F. C., and Stadie, W. C.

Lukens, M. See Boerner, F.
Lukesh, J. S., optical evidence of polysynthetic twinning in arsenopyrite, 1, 134. Thermal decomposition of arsenopyrite, I, 353.

Lukomskaja, M., Lachtina, E., and Tolkatschevskaja, N., influence of growth on metabolism of protein, fat, and carbohydrate in man. I., III, 1040.

Lund, C. C., and Crandon, J. H., human experimental scurvy, III, 521.

Lund, H., relation of concentration of red blood cells to sensitivity of isoagglutination reaction, its importance in demonstration of agglutinin in dried bloodstains, III, 552.

Lund, M. See Price, C. C.

Lundegårdh, H., manganese as a respiratory catalyst in plants, III, 399.
Lundgren, H. P., catalytic effect of crystal-

line papain on denaturation of thyroglobulin, III, 532.

Lundy, J. S., Tuohy, E. B., Adams, R. C., and Mousel, L. H., clinical use of local and intravenous anæsthetic agents, III, 615.

Luo, T. II., and Chang, E., sulphanilamide in treatment of trachoma, III, 609: and P'an, S. Y., sulphanilamide in

aqueous humour of human eyes, III, 998.

See also Chang, C. Y.

Luria, S. E., and Exner, F. M., inactivation of bacteriophages by X-rays, III, 1074.

Lurie, M. B. See Wells, W. F. Lurie, M. H., acquired and inherited deafness in animals, III, 260. Lurie, S. I., N-glyoxaline derivatives. 11..

II, 379. Lush, D., behaviour of vaccinia virus inoculated intranasally into mice, 111,

See also Andrewes, C. H.

Lustok, M. J. See Maresh, F.

Lutikova, O. T. See Rubin, B. A. Lntkra, J. C., Sattar, A., and Sandhu, S. S., physiology of Cytospora sacchari, Butl., causal fungus of stem canker disease of

sugar-cane, III, 304.

Lntschinski, G. P., action of hydrogen chloride on titanic and uranic anhydrides, 1, 87. System H<sub>2</sub>O-HCl-SO<sub>3</sub>. I. Thermal and ebulliometric study of the system H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>S<sub>2</sub>O<sub>7</sub>-ClSO<sub>3</sub>H, I,

and Suzdaleva, V. S., properties of barium thiosulphate, iif connexion with its use for analytical purposes, I. 424.

and Tschurilkina, V. F., arsenic salts. I. Formation of copper arsenites in

aqueous solutions, I, 344. Luttkus, K., and Bötticher, R., excretion of mineral substances by roots. I., III.

Luttropp, E. S. See Haden, W. L., jun. Lutwak-Mann, C., enzymic decomposition

of amino-sugars, III, 687. Lutz, B. R. See Fulton, G. P.

Lutz, J. F., calcinosis universalis, III, 604.

Lutz, K. See Schwarzenbach, G. Lutz, R. E., and Couper, M., cis- and trans-\beta-aroyl-a\beta-dimethylacrylic aroyl-a-methylerotonic] acids with particular reference to open-chain and cyclic forms of cis-derivatives, II, 134. Reduction of cis- and trans-β-p-xenoylaβ-dimethylacrylic [β-p-xcnoyl-amethylcrotonic] acids and their esters, II, 135.

and Smith, J. M., jun., synthesis of 2-hydroxy-4-benzoyl-2:5-diphenyl-furan-3-one by way of benzoyldiphenylfuran and bromotribenzovl-

ethylene, II, 200.

Smith, J. M., jun., and Stuart, A. H., 2-hydroxy-4-benzoyl-2:5-diphenylfuran-3-one, II, 200.

See also Couper, M. Lux, A. R. See Whitmore, F. C.

Luzzatti, L., and Hansen, A. E., serumlipins in sclerema [scleroderma] neonatorum, III, 731.

Lyall, H. W., production and standardisation of antipneumococcus serum, III,

and Murdick, P. P., human immune globulin in modification and prevention of measles, III, 538.

Lyday, J. H., evaluation of convalescent scrum in prevention of mumps, III, 935. Lyddane, R. H., Herzfeld, K. F., and

Sachs, R. G., electric fields in vibrating polar crystals, I, 76.

Rogers, F. T., jun., and Roach, F. E.,

abundances of molecules in solar reversing layer, I, 444.

Sachs, R. G., and Teller, E., polar vibrations of alkali halides, I, 294.

Lyerly, J. G. See Worchel, P. Lyman, C. M. See Barron, E. S. G.

Lyman, R. Y. See Lander, H. H. Lynas-Gray, J. I. See Gillam, A. E. Lynch, E. R. See Brown, Herman, and Kolmer, J. A.

Lynch, F. IV., nicotinie acid in treatment of acne vulgaris, III, 26. Acne vulgaris [sensitivity to staphylococcus toxoid], 111, 393.

Lyon, B. B. V. See Wirts, C. W., jun. Lyon, B. M., control of contagious abortion by vaccination, III, 1067.

Lyon, C. J., osmotic pressure for plant physiologist, III, 814.

Lyon, D. M., iodine and exophthalmic goitre, 111, 94. Significance of systolic murmurs, III, 841.

Lyon, R. A., antibody development to lymphocytic choriomeningitis in mice, ĬII, 934.

See also Anderson, N.A.

Lyons, J. B., metamorphism of sediments of the deep well near Wasco, California, and of deeply-buried cocene sediments near Ventura, California, I, 434.

Lyons, W. J., crystal density of native cellulose, I, 246.

Lyons, W. R., mammalian and avian assays of hypophyseal lactogenic preparations, III, 351.

See also Evans, H. M., and Li, C. H. Lyster, S. C. See Nelson, J. W.

Lythgoe, B., Macrae, T. F., Stanley, R. H., Todd, A. R., and Work, C. E., vitamin-B<sub>2</sub> complex of liver; identity of liver filtrate factor with pantothenic acid, III, 117.

Lythgoe, R.J. See Broda, E.E.

## M.

Ma, S. T., deviation from Coulomb law for the proton, I, 4. Electrostatic dipole moment of a nucleus in meson theory, I, 4. See also Heitler, W.

Ma, T. S. See Horecker, B. L.

Maas, O., dystrophia myotonica in infants and children, III, 852.

Maass, O. See Holder, C. H., and Naldrett, S. N.

Maassen, W., geographic pathology of arteriosclerosis, III, 423.

Mabon, H. E. See Warkany, J.
McAlister, E. D., Matheson, G. L., and Sweeney, W. J., large recording spectrograph for infra-red to 15µ, I, 348.

McAllister, F. F. See Root, W. S.
McAllister, S. H., Bailey, W. A., jun.,
and Bouton, C. M., catalysed cleavage of diacetone alcohol and other ketols and unsaturated ketones, II, 211.

McAlpine, D., and Hills, G. M., clinical

value [in polyneuritis] of thiochrome test for an urine (vitamin- $B_1$ ) in urine, III,

McAlpine, K. L., nutritional anæmia of

infancy, III, 490.

Macara, T. J. R. See Lowndes, J.

McArthur, R. E. See Simons, J. H.

McBain, J. W., and Johnston, S. A., phase-rule diagram for a mixture of sodium palmitate and sodium laurate with water, I, 267.

and Leyda, F. A., calculation of particle size and mol. wt. from current centri-

fugal methods, I, 411.

Merrill, R. C., jun., and Vinograd, J. R., solubilising and detergent action in non-ionising solvents, 1, 43. Solubilisation of water-insoluble dves in dilute solutions of aqueous detergents, I, 253.

and O'Connor, J. J., proof of thermo-dynamic stability of materials taken up by solutions containing solubilisers such as soap, 1, 43. Effect of potassium oleate on solubility of hydrocarbon vapours in water, I, 259.

and Sharp, E. R., comparative study of surfaces of solutions with film balance and surface tension equipment, I, 333.

Vold, M. J., and Johnston, S. A., hydration of curd fibres of sodium palmitate and oleate, I, 260.

McBain, J. W., Vold, R. D., and Frick, (Miss) M., phase-rule study of the system sodium stearate-water, I, 84. See also Marton, L., Vinograd, J. R.,

and Vold, R. D.

McBee, E. T., Henne, A. L., Hass, H. B., and Elmore, N., chlorofluoropropanes, II, 82. Macbrayer, R. See Engle, J. B.

McBride, J. J., Guest, M. M., and Scott, E. L., storage of major liver components; relationship between glycogen and water contents of liver; hydration of glycogen, III, 680.

McBryde, A., and Baker, L. D., vitamin therapy in progressive dystrophy, III, 852.

McCale, C. H. See Wood, R. G. muscular

McCalla, T. M., reaction of stains with bacteria, III, 316.

and Clark, F. E., dye absorption by bacteria at varying  $p_{\rm II}$ , III, 957.

MacCallum, F. O. See Findlay, G. M. McCance, R. A., secretion of urine in rabbits during experimental salt deficiency, III, 16. Metabolism and requirements of calcium, III, 455.

and Young, W. F., renal function of newborn infants, III, 447.

Sec also Kent, N. L.

McCann, F. T., agate artifacts in central New Mexico, I, 62.

McCann, W. S., and Romansky, M. J., orthostatic hypertension, III, 8.

McCannel, D. A. See Cook, E. N. MacCardle, R. C., Engman, M. F., jun.,

and Engman, M. F., histology of neurodermatitis, III, 859.

McCarrell, J. D. See Drinker, C. K. McCarter, J. C. See Mullen, J. P.

McCarter, J. R. See Woolley, D. W. McCarthy, J. L. See Creighton, R. H. J.,

MacInnes, A. S., and Schwartz, H. McCarthy, K. C., relationship of nitrous

oxide anæsthesia and anoxia, III, 1052.

McCarthy, M. C. See Rose, A. R. McCartney, D. H. See Scott, V. B.

McCarty, M. A. See Miller, R. C. MacCarty, W. C., cystic ovarian tumours,

111, 441. McCausland, D. J. M., Hodgkin's disease in

children, III, 553. McCauslin, G. R. See Bingham, E. C.

McCawley, E. L., Hart, E. R., and Marsh, D. F., preparation of N-allylmorphine, II, 111.

McCay, C. M., Maynard, L. A., Sperling, G., and Osgood, H. S., nutritional requirements during latter half of life. III, 370.

See also Kertesz, Z. I. McCay, J. B., and Bull, H. D., "good" eaters and "poor" eaters, III, 772.

McChesney, E. W., volumetric determin-

ation of urinary sodium, III, 449.

and Homburger, E., modification of test applicable to chicken line vitamin-D assay, III, 28.

McClary, C. F., and Upp, C. W., is paralysis of fowls, as manifested by iritis, transmitted through the egg? III, 145.

McClean, D., "substance B" of diphtheria toxin and diffusing factor, III, 801. Capsulation of streptococci and its relation to diffusion factor (hyaluron-

idase), III, 931. [with Hale, C. W.], diffusing factors; hyaluronidase activity of testicular extracts, bacterial culture filtrates, and other agents increasing tissue permeability, III, 302.

McCleary, H. R., and Hammett, L. P., rate and mechanism in reactions of ethyl p-toluenesulphonato with water, hydroxyl ions, and various halide ions, I, 475.

McClellan, G., determination of silica in acid-insoluble silicates, I, 219.

McClellan, W. R., and Connor, R., hydrogenation of aryl esters, II, 133. McClelland, E. W. See Fowkes, F. S.

McClelland, R. B., thyroid carcinoma: five

cases in dogs, III, 1028.

McClenahan, J. E., and Griffith, J. P.,
secondary exophthalmic goitre, III, 752.

McClendon, J. F., system of buffers and indicators with or without glass electrodes, I, 178.

and Foster, W. C., determination of dietary fluorine, I, 346. Thyroid hormone in blood and tissues in relation to basal metabolic rate, III, 437.

McCleskey, C. S., and Melampy, R. M., bactericidal properties of "royal jelly" of honey bee, III, 139.

McCloskey, K. E. Sec Johnstone, H. L. McClung, L. S., use of sodium thioglycollate in culturing large volumes of anaërobic

bacteria, III, 142.

McClure, F. L. See Arnold, F. A.

McClure, R. D. Sec Schnedorf, J. G.

McClure, W. B., chemotherapy in pneumonia cases treated by private practitioners, III, 904.

Maccoll, A. Seo Bennett, P. T.

McCollum, E. V., dirt in relation to dental caries, III, 282.

See also Day, H. G., Follis, R. H., jun., Mackenzie, C. G., Orent-Keiles, E., and Shils, M. E.

McCombs, P., Tuggle, A., and Guion, C. M., Roentgen ray therapy in treat-

ment of herpes zoster, III, 299.

MacConaill, M. A., mechanical anatomy of carpus and its bearings on surgical problems, III, 153.

McConkey, O., old bluegrass pasture, III, 634.

McConnell, D., clinobarrandite and isodimorphous series, variscite-metavariscite, I. 354.

McConnell, K. P. See Deatherage, F. E. McCord, C. P., Harrold, G. C., and Meek, S. F., chemical and physiological investigation of electric arc welding. III. Coated welding rods, III, 620.

McCorkle, M. R. See Ralston, A. W. McCoy, D. O. See Fox, G. W.

McCoy, O. R., loss of Trichinella larvæ fed

to immune rats, III, 313.

McCrady, M. H. See Howard, N. J. McCravey, A. See Oppenheimer, M. J. McCrea, H. M. See Ewins, A. J.

McCready, R. M. See Hassid, W. Z. McCreary, J. F. See Ford, N., and May,

C. D.McCullagh, D. R., and Guillet, R., use of

chick for assay of androgens, III,

See also Higgins, C. C.

McCullagh, E. P., and Cuyler, W. K., positive Friedman tests in nonpregnant states, III, 197.

and Jones, T. R., stilbæstrol in treatment of ovarian deficiency, III, 441. Effect of androgens on red cell count and glucose tolerance, III, 871.

and Tupper, W. R., anorexia nervosa, III. 444.

See also Ryan, E.J.

McCulloch, E. C., hepatic cirrhosis of horses, swine, and cattle due to ingestion of seeds of the tarweed, III,

and St. John, J. L., lead arsenate poisoning of sheep and cattle, III, 129.

St. John, J. L., and Groves, K., moderate amounts of lead arsenate-sprayed apples non-injurious to swine, III, 41.

See also St. John, J. L.

McCullough, J. A. L., pseudofractures in diseases affecting skeletal system, III,

See also Camp, J. D.

McCullough, J. D., and Hamburger, (Miss) G., crystal structure of selenium diphenyl dibromide, I, 196.

McCune, D. J., and Weech, A. A., electrophotometric determination of phosphorus by method of Fiske and Subbarow, III, 316.

McCurdy, E., urinogenital sinus in opossum, III, 3.

McCurdy, T. See Minckler, J.

McCutcheon, F. H., specific oxygen affinity of hamoglobin in adult rats, III, 251.

McCutcheon, J. W., Crawford, M. F., and Welsh, H. L., isomeric structure of C18 unsaturated [fatty] acids from their Raman and infra-red spectra, II, 159.

McCutcheon, M., and Dixon, H. M., chemotropic reactions of polymorphonuclear leucocytes to various microorganisms, III, 165.

McDevitt, E. See Member, S.

Macdonald, A. D., actions and uses of hemp drugs, III, 381.

See also Russell, P. B.

Macdonald, D., post-operative perfusion of biliary ductal system, III, 272. Nasal duodenal tube, III, 511.

McDonald, E. J. See Jackson, R. F. McDonald, F. See Hass, G. McDonald, F. M., and Johnson, H. H., ascorbic acid and arsphenamine dermatitis, III, 598.

Macdonald, G. A., progressive meta-somatism of serpentine in Sierra Nevada

of California, I, 491.

McDonald, H. J., system ethyl alcoholglyccrol-benzene at 25°, I, 253. Liquidvapour composition of boiling ternary solution ethyl alcohol-glycerol-benzene, I, 266.

Macdonald, I. G., response of mammary gland to prolonged stimulation with ovarian hormones, III, 875.

McDonald, J. R., and Broders, A. C., seminoma and teratoma in same testis, III, 591.

McDonald, M. R., and Kunitz, M., effect of calcium and other ions on autocatalytic formation of trypsin from

trypsinogen, III, 1062. Macdonald, P. A., and Margolese, M. S., purification of radon, I, 350.

McDonald, R., and Adler, F. H., clinical evaluation of tests of dark adaptation, III, 91.

McDonald, R. H., nephrotic syndrome, III,

McDonough, F. E., aviation medicine, III, 656.

McDowall, R. J. S., physiological approach to medical problems, III, 449. Peripheral resistance and response to intravenous injection of fluid, III, 733.

McEachern, D., epilepsy, III, 860. McEleney, W. J. See Andervont, H. B.

McElroy, L. W., and Goss, H., vitamins in rumen contents of sheep and cows fed vitamin-low diets. I. Riboflavin and vitamin-K. II. Vitamin-B<sub>6</sub> (pyridoxine). III. Ancurin. IV. Pantothenic acid, III, 285, 519, 893. Development and cure of "ring-tailed" condition in rats on vitamin-B<sub>6</sub>-deficient diets, III, 286. and Jukes, T. H., formation of anti-egg-

white-injury factor (biotin) in rumen of cow, III, 600.

McElroy, W. R. See Elving, P. J.

McElvain, S. M., and Goese, M. A., preparation of nicotinic acid from pyridine, II, 375.

and Johnson, H. G., condensation of a-picoline and quinaldine with activo ketones, II, 378.

and Weber, K. H., acyl exchanges between esters and 1:3-diketones and β-keto-esters, II, 352.

McEwen, C. See Hench, P. S. McEwen, H. D., and Haven, F. L., effect of carcinosarcoma 256 on water content of liver, III, 1029.

Macey, H. B., multiple pseudofractures, III, 485.

Macey, H. H., rheology of clay, 1, 412.

McFarland, M. D. See Norcross, J. W. McFarland, O. W., and Connell, J. H., evaluation of serum and plasma transfusions in treatment of shock, III, 831.

McFarland, R. A., and Forbes, W. H., effect of oxygen and glucose on dark adaptation, III, 91.

McFarlane, D., experimental phosphate nephritis in rat, III, 273.

Macfarlane, M. G., and Knight, B. C. J. G., biochemistry of bacterial toxins. I. Lecithinase activity of Cl. welchii toxins, III, 1067.

and Weil-Malherbe, H., changes in phosphate distribution during anaërobic glycolysis in brain slices, III, 343.

See also Kekwick, R. A.

Macfarlane, R. G., mechanism of hæmostasis, III, 648.

Oakley, C. L., and Anderson, C. G., hæmolysis and production of opalescence in serum and lecitho-vitellin by a-toxin of Clostridium welchii, III, 308.

Trevan, J. W., and Attwood, A. M. P., fat-soluble substance and coagulation

of blood, III, 727.

McFarlane, W. D., and Chapman, R. A., pasture studies. XXI. Improved thiochrome method for determination of vitamin- $B_1$ , Il1, 684. See also Goss, G. C. L., and Parker, W. E.

McGavack, T. H., Boyd, L. J., Piccione, F. V., and Terranova, R., acute and chronic intoxications with sodium pentachlorophenoxide in rabbits, III,

McGee, L. C., and Emery, E. S. jun., digestion in jejunum, III, 271. Rate of absorption of amino-acids from small intestine in man, III, 582.

McGhie, B. T., psychological medicine in modern practice, III, 995.

MacGillavry, C. H. See Verweel, H. J.

McGinnis, (Miss) N. A., and Robinson, (Sir) R., synthesis of substances related to sterols. XXXIV., II, 302. McGinty, A. P. See Strickler, C. W., jun.

McGlade, H. B., automatic mercury valve, I, 132.

McGlenn, R. C. See White, C. B. McGovern, F. H., granulocytopenia after causalin (amidopyrin), III, 297.

McGowan, J. P., cancer theory, III, 453. McGrath, J. W., device for rocking a crystal in a vacuum X-ray spectrograph; simple design for crystal support assembly in a vacuum X-ray spectrograph, I, 178.

McGraw, J. J. See Strumia, M. M. McGraw, M. B., suspension grasp behaviour of human infant, III, 179. Neural maturation of infant as exemplified in righting reflex or rolling from dorsal to prone position, III, 565.

McGreal, M. E., and Niederl, J. B., invert soaps; quaternary morpholinium

salts, II, 271.

Macgregor, A. M., crystallised gold from Southern Rhodesia, I, 492.

McGregor, H. G., exophthalmic ophthalmoplegia, III, 346.

MacGregor, J. H. See Hopper, I. V. McGregor, J. S., and Crumbie, J. R.,

prefrontal leucotomy, III, 991.

MacGregor, R. G. S., and Loh, G. L.,

metabolism, plus rate, and blood pressure of Europeans in tropics, III, 780.

Richards, W., and Loh, G. L., differential leucocyte, III, 72.

MacGregor, R. R., sulphanilamide and sulphapyridine in treatment of acute laryngo-tracheo-bronchitis, III, 291.

MacGregor-Morris, J. T., and Stainsby, A. G., rotating differential photo-electric photometer for precision work, I, 389.

McGrew, R. V. See Whitmore, F. C. McGuinness, M. C. L., crymotherapy; temperature observations, III, 531.

McGuire, G. Sec Lewis, J. M.

McGuire, H. H., and McGuire, W. P., case of gyrate atrophy of choroid and retina (Fuchs), III, 865.

McGuire, W. P. Sec McGuire, H. H.

McGuire, W. S., improved [electrical]

conductivity apparatus, I, 58.

Machara, H. See Yasni, S.
McHardy, G. See Browne, D. C.
McHargue, J. S., [determination of] boron

[in plant materials], III, 941.

Machemer, P. E. See Eddy, R. D. McHenry, E. W., and Gavin, G., B-vitamins and fat metabolism. IV. Synthesis, of fat from protein, III, 518.

See also Gavin, G., Longenecker, H. E., Patterson, J.E.

Machle, W., lead absorption from bullets in tissues, III, 466. and Evans, E. E., exposure to fluorine

in industry, III, 43.

Scott, E. W., and Treon, J., physiological response of animals to simple mononitroparaffins and to derivatives of these compounds, III, 221.

Macht, D. I., and Macht, M. B., phytotoxic reactions of blood sera, III, 541.

and Spencer, E. C., physiological and toxicological effects of fish muscle extracts, III, 738.

Macht, M. B. See Macht, D. I.

McIlwain, H., amino-sulphonic acid analogues of natural amino-carboxylic acids, II, 123. Pyridine-3-sulphon-2'-pyridylamide: modelling of chemotherapeutic agents, III, 215. Bacterial inhibition by amino-sulphonic analogues of natural amino-carboxylic acids, III, 799.

McIndoe, A. H., functional aspect of burn

therapy, III, 222.

MacInnes, A. S., West, E., McCarthy, J. L., and Hibbert, II., lignin and related XLIX. Occurrence compounds. guaiacyl and syringyl groupings in ethanolysis products from various plants, III, 151.

Macinnes, D. A. See Longsworth, L. G. McIntire, F. C., Peterson, W. H., and Riker, A. J., carbon metabolism of crown-gall organism, III, 799.

Macintire, W. H. See Hammond, J. W. Macintosh, F. C., distribution of acetylcholine in nervous system, III, 741. Colorimetric standardisation of heparin preparations, III, 836. Determination of potency of heparin preparations, III, 836.

and Work, T. S., aminoethanol derivatives possessing local anæsthetic activity, II, 203; III, 528.

See also Gale, E. F

McIntosh, J., and Selbie, F. R., chemotherapy of gas gangrene, III, 460.

Macintosh, R. R., and Mendelssohn, K., quantitative administration of ether vapour, III, 1051. Oxford vaporiser, No. 1, III, 1051.

and Pask, E.A., apparatus for continuous intravenous anæsthesia, III, 1051.

McIntyre, A. K., physiology of cerebellum, III, 660.

McIver, M. A., increased susceptibility to chloroform poisoning in rat produced by thyroxine, III, 571.

Mack, G. L., Davis, J. K., and Bartell, F. E., boundary tension of gallium, I, 324.

Mack, J. E. See Anderson, E. E., and Roberson, J. H.

Mack, W. B. See Thomas, W.

McKail, R. A., Obrador, S., and Wilson, W. C., effect of acetylcholine, eserine, etc. on motor responses of central nervous system, III, 431.

MacKay, A. See Detweiler, H. K.
McKay, C. M. See Bowers, R. E.
MacKay, E. M., compensatory
hypertrophy following unit unilateral nephrectomy; influence of testosterone propionate, III, 585.

and Barnes, R. H., cure for signs of eggwhite disease by corn-oil fatty acids and vitamin-B<sub>6</sub>, III, 777.
Callaway, J. W., and Barnes, R. H.,

hyperalimentation in normal animals produced by protamine insulin, III, 21. and Sherrill, J. W., influence of thyroidectomy on fat deposition in rat, III,

436. Wick, A. N., and Barnum, C. P., kctogenic action of fatty acids having odd numbers of carbon atoms, III, 122. Hepatic glycogen formation by

isomerides of alanine, III, 289. Wick, A. N., Carne, H. O., and Barnum, C. P., influence of alkalosis and acidosis on fasting ketosis, III, 604.

See also Barnes, R.H., Holder, H.G., and Wick, A. N.

McKay, H. A. C., use of Geiger-Müller counter for small quantities of liquids, I, 223.

Mackay, H. M. M., eumydrin in treatment of hypertrophic pyloric stenosis, III, 581.

Mackay, I. F. S., automatic collection of lung gases in cats, III, 174.

MacKay, M. E., bacteriostatic effects of disinfectants in serum and plasma, III,

McKeag, A. II. See Rooksby, II. P. McKee, C. M. Sec Rake, G.

MacKee, G. M., and Astrachan, G. D., value of liver extract in cases intolerant to arsenicals, heavy metals, and radiation, III, 272.

McKee, R. W., microchemical colorimetric determination of carbon disulphide in air, water, and biological fluids, III, 947.

McKeever, C. H. See Fuson, R. C.

MacKeith, R., and Bailey, U. M., supravital

staining, III, 489.

McKelvey, V. E., flotation of sand in nature, I, 490.

McKendree, O. J., and Lehrman, S. R., toxic delirium following intrathecal magnesium sulphate, III, 499.

M'Kendrick, A. G. See Kermack, W. O. McKennis, H., jun., pentahydrate of 2-sulphanilamidothiazole sodium salt, II. 153.

Mackenzie, C. A., and Rawles, W. T., identification of primary aliphatic amides

as oxalates, II, 60.

Mackenzie, C. G., Levine, M. D., and McCollum, E. V., prevention and euro of nutritional muscular dystrophy in rabbits by a-tocopherol in absence of a water-soluble factor, III, 30.

Mackenzie, J. B., and McCollum, E. V., uncomplicated vitamin-E deficiency in rabbit; relation to toxicity of cod-

liver oil, III, 779.

Mackenzie, D. W., Whipple, A. O., and Wintersteiner, M. P., microscopic anatomy and physiology of living transilluminated mammalian spleens, III, 549.

McKenzie, F. F. See Winchester, C. F. Mackenzie, J. B. Sec Mackenzie, C. G.

Mackenzie, K., mutation and lethal effects of ultra-violetirradiation on Drosophila, III, 1060.

and Muller, H. J., mutation effects of ultra-violet light in Drosophila, III,

MacKenzie, K. R. See Corson, D. R. McKey, B. See Breiter, H., Kempster, E., and Mills, R.

McKibbin, J. M., Black, S., and Elvehjem, C. A., essential nature of pantothenic acid and another alkali-labile factor in

nutrition of dog, III, 519.

Mackie, T. T., vitamin-K deficiency in absence of jaundice, III, 646.

Eddy, W. H., and Mills, M. A., vitamin deficiencies in gastro-intestinal disease, III, 115.

and Mills, M. A., changes in small intestine associated with deficiency

disease, III, 271.

McKillop, G. C. See Heymann, E.

McKinlay, C. A. See Ellis, R. V.

McKinley, H., icterus gravis neonatorum with erythroblastosis, III, 551.

McKinley, J. B. See Stearns, G. McKinley, W. A. See Eakin, R. E.

Mackinney, G., absorption of light by chlorophyll solutions, I, 398. Colour-ing matter of plants. IV. Mising matter of plants. cellaneous plant pigments, and types of discoloration, III, 1086.

and Joslyn, M. A., chlorophyll-phæophytin; temperature coefficient of rate of phæophytin formation, I,

McKinney, M. G. See Bodansky, M. Mackinnon, D. J., sulphonamides in gonorrhea, III, 291.

Macklin, C. C., pattern of interstitial emphysema induced in excised lung of calf by overinflation, III, 175.

See also Macklin, M. T.

Macklin, M. T., and Macklin, C. C., does chronic irritation cause primary carcinoma of human lung? III, 208.

MacLachlan, E. A. See Talbot, N. B. MacLachlan, P. L., Hodge, H. C., and Whitehead, R., lipins of adrenal gland in normal and fasting rabbits, III, 754.

See also Hodge, H. C., and Rafferty, M. A.

McLaehlan, W. W. G., Johnston, J. M., Bracken, M. M., and Pierce, L. S., comparison of mortality in pneumococcie pneumonia treated by hydroxyethylapocupreine and by sulphapyridine, III. 611.

Maclagan, N. F., galactose tolerance in jaundice and hyperthyroidism, III,

McLain, P. L., and Pastorius, G. J., photoelectric hæmoglobinometer, III, 490.

Maclay, W. S., and Guttmann, E., mescaline hallucinations in artists, 111, 259, 790.

MacLean, A. R., Graig, W. McK., and Alden, E. V., application of postural

physiologic principles in neurosurgery, 111, 665.

McLean, C. See Kennedy, A. S.
McLean, C. C., Woods, A. W., and Hender-

son, H. II., action of sulphapyridine in Pfeiffer bacillus meningitis, III, 124.

MacLean, D. L., and Partridge, R. C., seasonal changes in body's response to ventilative conditions, III, 43.

McLean, F. C., and Bloom, W., calcification in normal growing bone, III, 241.

Maclean, I. H., and Holt, L. B., combined immunisation with tetanus toxoid and T.A.B., III, 311.

See also Parish, H.J.Maclean, I. S. See Dolby, D. E. MacLean, J. D. See Bull, L. B.

McLean, P. See Friedman, M. McLees, E. See Lipman, C. B.

McLendon, P. A., X-ray treatment of chronic sinusitis in children, III, 670.

McLeod, C., action of mucin in experimental meningococcus infection. Properties of mucin which influence its activity. II. Effect of mucin on defence mechanism of mouse, III, 1069. McLeod, C. E., and Goodale, R. H.,

hæmorrhagic diathesis in case of gastric carcinoma with skeletal metastases, III,

835.

MacLeod, C. M., inhibition of bacteriostatic action of sulphonamide drugs by substances of animal and bacterial origin, III, 472.

MacLeod, F. L. See Williams, D. E.

Macleod, J., and Hotchkiss, R. S., effect of hyperpyrexia on spermatozoa counts in men, III, 672.

McLeod, J. H., [treatment of] meningococcus meningitis [with serum and sulphanilamides], III, 785.

McLeod, J. L., adrenal therapy, III, 754. McLeod, J. W. See Burton, H., and

Gordon, J.

Macleod, L. D., and Reiss, M., tissue metabolism of brain cortex and liver after hypophysectomy and treatment with thyrotropic hormone, III, 97.

McLeod, R. B., spatial disorientation during landing from airplane, III, 505. McLeod, T. S. See Burton, II.

McMahon, B.J., abuses of nasal medication,

MacMahon, P. S., and Lai, B. B., photochemical after-effect in oxalate-iodine reaction, I, 18.

McManus, J. F. A., case in which both pulmonary veins emptied into persistent left superior vena cava, III,

See also Miller, J.

McMaster, P. D., intermittent take-up o fluid from cutaneous tissue, III, 654. Intermittent passage of Locke's solution into living skin, III, 654.

MacMasters, M. M., Woodruff, S., and

Klaas, H., soya-bean carbohydrates, III,

942.

McMeekan, C. P., growth and development in pig, with special reference to carcase

quality. III.—V., III, 21, 275.

McMeekin, T. L., preparation and properties of scrum- and plasma-proteins. II. Crystallisation of a carbohydratecontaining albumin from horse serum, III, 330.

See also Cohn, E. J.

McMichael, J., oxygen therapy, III, 86. Accidental acute carbon monoxide poisoning, III, 251. Circulatory collapse and wound shock, III, 329. Gaucher's disease, III, 836.

See also Glaser, E. M., and Hill, D. K. McMillen, J. H., Stutzman, L. F., and Hedrick, J. E., pendulum method for

measuring settling velocities, I, 433.

MacMullen, C. W. See Bruson, H. A.

McMurdie, H. F., X-ray studies of compounds in systems PbO-B<sub>2</sub>O<sub>3</sub> and H<sub>2</sub>O-PbO-SiO<sub>2</sub>, I, 403.

See also Flint, E. P.

McMurry, H. L. long wave length spectre.

McMurry, H. L., long wave-length spectra of aldehydes and ketones. I. and II., I, 237.

MacNair, D. See Nix, F. C.
McNally, J. R., jun. See Harrison, G. R.
McNally, P. A. See Bigger, J. W.
McNally, W. D., acute silicosis, III, 467.

and Trostler, I. S., severe pneumo-coniosis caused by inhalation of fuller's earth, 111, 700.

McNamara, H. See Gordon, H. H. McNaught, J. B., Beard, R. R., and Myers, J. D., diagnosis of trichinosis by skin and precipitin tests, III, 811.

McNaught, K. J., and Paul, G. W., case of cobalt deficiency on limestone soil, III, 220.

McNaughton, F. See Penfield, W. MacNeal, W. J. See Nyboer, J. McNeer, G. See Pack, G. T. MacNevin, W. M. See Kolthoff, I. M.

McNew, G. L., attenuation of Phytomonas stewartii cultures, III, 1066.

McNutt, S. H., and Trussell, R. E., growth of Trichomonas fætus and T. vaginalis in chick embryos, III, 798.

See also Trussell, R. E. Mácola, B. A. See Fazio, C. Macomber, M. See Vold, M. J.

McOmie, W. A. See Salle, A. J. McPhee, W. D. See Adams, R.

MacPherson, A. I. S. See Robson, J. M.

Macpherson, E. O., manganese deposits in Manukau and Franklyn Counties [New Zealand], I, 492.

Macpherson, I., renal glycosuria with hypoglycæmia, III, 1020.
 MacPhillamy, H. B., nature of Haslewood's

hepatols, II, 73. See also Fernholz, E. MacQuaide, D. H. G., and Mollison, P. L., transfusion of red cells in anæmia, III,

McQuarrie, I., Ziegler, M. R., and Stone, W. E., insulin convulsions. I. Significance of serum electrolytes. II. Effects of breathing atmospheres varying in oxygen and carbon dioxide content, III, 350.

Ziegler, M. R., Stone, W. E., Wangensteen, O. H., and Dennis, C., insulin convulsions; effects of varying partial pressures of atmospheric oxygen and carbon dioxide in adrenalectomised animals, III, 350.

See also Hansen, A. E.

McQueen-Williams, M., and Thompson. K. W., effect of ablation of hypophysis on weight of kidney of rat, III, 96.

MacQuiddy, E. L., La Towsky, L. W., Tollman, J. P., and Finlayson, A. I., toxicology of oxides of nitrogen. II. Physiological effects and symptomatology, III, 920. See also La Towsky, L. W., and Tollman,

McQuillin, F. J., and Robinson, (Sir) R., synthesis of substances related to sterols. XXXIX. Derivatives of hydrindene; reduction of 1-γ-ketobutyl-2-naphthol, II, 366.

McQuitty, J. T. See Cummins, H. McRae, J. A. See Marion, L. Macrae, T. F. See Lythgoe, B.

McReynolds, J. P., separation method and qualitative test for cadmium ion involving alkaline tartrate complexes, I, 128.

and Witmeyer, J. R., optical rotation of aliphatic acid salts of triethylenediaminecobaltic hydroxide; further evidence for ring structure in aliphatic series, II, 213.

McShan, W. H., and Meyer, R. K., preparation and properties of pituitary follicle-stimulating fractions prepared by trypsin digestion, III, 98. Effectiveness of hæm in augmentation of gonadotropic extracts from different sources, III, 674.

See also Meyer, R. K.

McSweeney, C. J., avid scrum in hypertoxic diphtheria, III, 473.

McSwiney, B. A., oxygen therapy, III, 86. MacViear, R., and Heller, V. G., bloodchloride and -phosphorus as affected by adrenaline injection, III, 437.

Macy, I. G. See Beach, E. F., Erickson, B. N., Hunscher, H. A., Kenyon, F., and Williams, H.H.

Madan, K. E., decreasing toxicity and complications of anæsthesia, III, 464.

Madden, L. E. See Bunch, G. H. Madden, S. C. See Robscheit-Robbins, F. S.

Madders, K. See Lawrence, R. D.
Maddison, L. See Hilditch, T. P.
Maddock, A. G. See Emeleus, H. J.
Maddock, W. G. See Power, F. H.

Maddox, K., normal apical precordial lead of electrocardiogram, III, 972.

and Isbister, J., case of single coronary artery, quadricuspid pulmonary valve. and anomalous right subclavian artery. III, 65.

Maddren, R. F. See Schwartz, H. J. Madigan, L. F. See Ogle, K. N.

Madinaveitia, J., diffusing factors. VII. Concentration of mucinase from testicular extracts and Crotalus atrox venom, III, 587.

Madinaveitia, J., and Quibell, T. H., diffusing factors. VIII. Reduction of viscosity of vitreous humour preparations by ascorbic acid and diazocompounds. IX. Effect of salts on action of testicular extracts on viscosity of vitreous humour preparations, III, 587.

See also East, M. E.

Madlener, M.J. See Werle, E.

Madoff,  $\hat{I}$ . See Eidelsberg,  $\hat{J}$ .

Madonick, M. J. See Levethan, S. T. Madsen, L. L. See Davis, R. E., Ellis, N. R., and Etten, C. van.

Maechling, E. H., urinary porphyrin before and after hydrolysis, III, 1021.

Maegraith. B. G. See Brown, G. M. Maekawa, G., and Arimori, T., constitution

of alkaline-earth aluminate solutions, I, 114.

Maere, M. See Bogaert, L. van.

Maes, J., effect of hypophysectomy on sexual behaviour of female cat, III, 186. Magalhaes, H. See Greisheimer, E. M.

Magat, M. A., and Smoilovskaja, E. J., pathogenic rôle of depression of oxidation processes in development of malignant tumours, III, 205.

Magath, T. B., Takata-Ara test in liver disease, III, 201.

See also Haines, S. F.

Magaziner, E. See Kondrateev, V.

Mage, S. See Moschowitz, E.

Magee, J. L., directed valency in chemical reactions, I, 17. Mechanism of reactions involving excited electronic states; gaseous reactions of alkali metals and halogens, I, 17.

and Daniels, F., heat of photobromination of phenylmethanes and cinnamic acid, and influence of oxygen, I, 54.

Ri, T., and Eyring, H., theory of acid strength; temperature effect, I, 299. Shand, W., jun., and Eyring, H., non-

adiabatic reactions; rotation about the double bond, I, 194.

Magel, T.T. See Calvin, M., and Lewis, G.N.Magers, E., vitamin-C requirements of

sucklings and infants, VII, 27.

Magidson, O. J., and Rubtzov, M. F., chemotherapeutic compounds of streptocide series. I. Compounds containing

the azo-group, II, 62.

Magill, T.P., repeated attacks of influenza, III, 807.

and Tyndall, M., two outbreaks of influenza caused by antigenically different viruses, III, 807.

Magladery, J. W., Solandt, D. Y., and Best, C. H., serum and plasma in experimental hæmorrhage, III, 6.

Magner, W., hyperinsulinism, III, 868.

Magnusson, F. S. See Blanchard, A. A. Magnigan, W. H., and Walker, E., sterol metabolism of micro-organisms. I. Yeast. III. 48.

Magnire, J. F. See Moore, F. J. Magyar, G. See Plattner, P. A. Mahan, J. E. See Wolfrom, M. L.

Mahdehassan, S., diagenesis versus mutation, III, 927.

Mahendra, B. C., Iocomotion of Indian house-gecko, Hemidactylus flaviviridis, Rüppel, III, 736. Maher, M. M. See Kinney, T. D.

Mahl, H., determination of orientation of aluminium single crystals by electron microscopy, I, 403. Stereoscopic photo-graphs with electrostatic electron microscope, I, 485.

Mahler, G., paralysis of legs after treatment with spirozid, III, 917.

Mahoney, J. F. See Morton, A. A., and Van Slyke, C. J.

Mahoney, P. J., and Chamberlain, J. W., hydrometrocopolos in infancy; congenital artesia of vagina with abnormally abundant cervical secretions, III, 358.

Mahoney, W. See Foerster, O.

Maier, C., case of beri-beri, III, 25. Action of sulphapyridine and sulphathiazole in epidemic meningitis, III, 34.

See also Löffler, W.

Maier, E., preservation of biological fluids (bacteriophage, vaccines, and venom solutions) with alkyldimethylbenzylammonium chlorides, III, 1065.

Maier, H. C. See Stewart, W. H. Maier, H. W., treatment of syphilis of central nervous system, III, 296.

Maier, N. R. See Sacks, J.

Main, E. R., and Locke, A., carbonic anhydrase. I. Activity, III, 1062.

Main, R. J., effects of adrenaline and amphetamine on respiration and blood pressure in different postures, III, 338. Mercury valve for obtaining alveolar air samples, III, 564.

Mainland, D., and Gordon, E. J., position of organs determined from thoracic radiographs of young adult males, 111, 637.

Mainwaring, B. R. S., Aylward, F. X., and Wilkinson, J. F., potassium and phosphate in plasma from stored blood, III, 162.

See also Aylward, F. X.

Mainzer, F., and Herseh, P., respiratory function of blood in polycythæmia vera (Vaquez-Osler disease), III, 164.

Mair, B. J., Glasgow, A. R., jun., and Rossini, F. D., determination of freezing points and amounts of impurity in hydrocarbons from freezing and melting curves, II, 309.

Maisel, F. E., pepsin allergy, III, 479.

and Abramson, H. A., measurement of

whealing in hypersensitiveness to cold treated with histamine and histamin-

ase, III, 814.

Maison, G. L., gelatin and glycine in muscular fatigue, III, 252.

and Brocker, A. G., ergograph for student use, III, 427.

Maitland, D. G., punctate epiphyseal dysplasia occurring in two members of same family, III, 65.

Maizels, M., and Paferson, J. H., survival of stored blood after transfusion, III, 162.

Maizlisch, R. M. See Vasilenko, V. C. Majima, R., and Tamura, K., Aconitum alkaloids. XIV. Formation of ketones from Aconitum alkaloids, II, 381.

Major, R. H., treatment of pneumonia, III, 526.

Major, R. T., and Finkelstein, J., resolution of dl-a-hydroxy-ββ-dimethyl-γ-butyrolactone, II, 240.

Majumdar, A. C., anterior pituitary-like gonadotropic hormone from human urine of pregnancy. I., III, 189. Effect of injection of cobra venom on ascorbic acid content of guinea-pig tissues, III, 297.

Makaeva, Z. See Kuzin, A., and Stepanov,

Makarevitsch-Galperina, L. M., nucleotide composition of cardiac muscle, III, 732.

Makarov, S. Z., and Schulgina, M. P., solid transformations in system K<sub>2</sub>CO<sub>3</sub>-Na<sub>2</sub>CO<sub>3</sub>, I, 266. Solubility diagram of system K<sub>2</sub>CO<sub>3</sub>-Na<sub>3</sub>CO<sub>3</sub>-H<sub>2</sub>O and separation of potassium and sodium carbonates, I, 266.

and Sedelnikov, G. S., system Na<sub>2</sub>CO<sub>3</sub>-NaHCO<sub>3</sub>-Na<sub>2</sub>SO<sub>4</sub>-NaCl-H<sub>2</sub>O, in region of crystallisation of natron, I, 267.

Makepeace, A. W., presence of gonado-tropic substance in urine of nonpregnant female macaques, III, 442.

Maki, T., and Kikuchi, A., vat dyes of the benzanthrone series. XXIII. Synthesis of 8:8'-dimethoxyviolanthrone, II, 105.

Makolkin, I. A., standard free energies of formation of metallic sulphides from e.m.f., I, 416. Affinity between cadmium and zinc, and sulphur, I, 469.

Makoto, S., Coruncbacterium isolated from paradental pockets of pus, III, 391. Malakar, M. C. See Basu, K. P.

Maldonado Allende, I., and Orias, O., effect of novocaine on primary ventricular fibrillation produced by experimental coronary occlusion, III, 171.

Malentacchi, L. A. See Amundsen, L. H. Malevskaja, S. S., resinic acids of conifers. IV. Structure of l-pimaric acid, II, 143.

Malinovski, M. S., formation of oxonium compound of dioxan with arsenic trichloride, II, 302. Action of olefine oxides on halides of arsine. II., II, 317.

Maljarov, V. V., scattering of α-particles by light nuclei, I, 146.
Malkemus, J. D. See Suter, C. M.

Mallet, R. See Boulin, R.

Mallinson, F. B., casualty anæsthesia in [British] Emergency Medical Service, 111, 913.

Malluche, H., experimental allergy in guinea-pigs, III, 232.
Malméjac, J., and Donnet, V., origin and

path of cholinergic nerves in splanchnic supply to stomach, III, 876. Blood supply of muscle during activity, III. 975.

Donnet, V., and Monges, H., intrathoracic anastomoses of vagi and gastrie motility in dog, III, 876. Action of extrinsic stomach nerves on gastric motility, III, 876.

and Jonesco, G., effect of adrenaline on blood vessels of striated muscle, III, 975.

Malpica, J. T. M., quantitative spectrographic analysis, I, 126.

Malpress, F. H. See Blair, G. W. S.

of crayfish, III, 365.

Maltry, E. See Kahle, P. J.
Maltzev, V. A. See Kapustinski, A. F.
Maluf, N. S. R., osmo- and volume-regulation in alimentary tract of earthworm, III, 106. Secretion of inulin by kidney

Malz, W., feeding of newborn and young sucklings with acidulated milk, III,

Mamedaliev, J. G., and Kuliev, A., solubility of methyl chloride in solvents, I, 108.

Mamontova, O., Abkin, A., and Medvedev. S., kinetics of the polymerisation of Δαγ-butadiene in presence of potassium

phenylisopropyl, I, 420.

Mamotenko, M. F., binding energy of molecules with localised bonds, I, 323. Calculation of energy of repulsion. II., I, 401.

Mampell, K., female sterility in interracial hybrids of Drosophila pseudo-obscura, III, 825.

Man, E. B. See Gildea, E. F., and Riggs,

Mancini, R. E., and Celani-Barry, R., [histological] method for investigation of peroxidase in tissues, III, 723.

Mandal, K. L., alleged dimeric constitution of ethylenediaminocupric chloride, I, 293.

Mandel, I. See Lehrman, L.

Mandelbaum, J., dark adaptations: physiologic and clinical considerations, III, 999.

See also Hecht, S.

Mandelbaum, M., action of sulphonamides and their derivatives on bacteria, III, 389.

Mandour, A. M. M. See Dhar, M. L. Manery, J. F., and Bale, W. F., penetration of radioactive sodium and phosphorus into extra- and intra-cellular phases of tissues, III, 783.

and Haege, L. F., extent to which radioactivo chlorine penetrates tissues and its significance, III, 1043.

Maneval,  $W.\ E$ ., staining bacteria and yeasts with acid dyes, III, 316.

Mangos, J. F., healing of [tooth] extraction wounds, III, 951.

Mangun, G. H., Reichle, II. S., and Myers, V. C., creatine, phosphorus, and potassium in heart and voluntary muscle, III, 497.

See also Myers, V. C.

Manifold, M. C., effect of antisoptics on respiration of brain tissues in vitro, III, 786.

See also Channon, H. J.

Manley, J. R., female sex hormone therapy, III, 873.

Manley, R. H. See Raiford, L. C.
Manly, M. L., Hodge, H. C., and Van
Voorhis, S. N., distribution of ingested phosphorus in bone and teeth of dog, shown by radioactive isotope, III, 605.

and Levy, S. R., effect of pregnancy on phosphorus turnover of skeleton of rats on normal and rachitogenic diets, III, 765.

Mann, D. R., and Tompkins, F. C., kinetics of oxidation of organic compounds by potassium permanganate. III. Formic acid, I, 271.

Mann, F. C. See Douglas, D. M.

Mann, F. G., metallic triazine complexes, II, 337.

Mann, P. J. G., and Quastel, J. H., nicotinamide, cozymase, and tissue metabolism, III, 457, 621. Mann, T. See Feldberg, W.

Mannheimer, E. See Lichtenstein, A.

Manning, J. F., and Mason, J. P., solid derivatives of monoalkyl ethers of ethylene glycol and diethylene glycol. II., II, 209.

Manning, M. F., and Bell, M. E., electrical conduction and related phenomena in solid dielectrics, I, 363.

See also Hartree, W.

Manning, P. D. V. See Stokstad, E. L. R. Mano, C., pharmacological action of vitamin B<sub>1</sub>, III, 24.
Mansfield, G. R., rôle of fluorine in phosphate

deposition, I, 228.

Mansfield, J. S. See Weeks, D. M.Mansheley, M. E. See Filippova, N. S.

Manske, R. H. F., alkaloids of fumariaceous plants. XXVIII. Corydalis nobilis, Pers. XXX. Aurotensine, II, 24, 110. Source of cocositol, III, 405.

Manson-Bahr,  $P_{\cdot \cdot}$ , glossitis and vitamin- $B_2$ complex in pellagra, III, 210. Phenothiazine as anthelminthic, III, 464.

Manulkin, Z., and Jakubova, F., organic compounds of silicon. I. Synthesis of silicon tetrabenzyl and tetraphenyl, II, 274.

Manusova, F. A. See Zanko, A. M. Manzini, C., massive fatty changes of both musculi semimembranosi, III, 426.

Mao, C. Y., and Hughson, W., patency of eustachian tube in relation to profound hearing loss in childhood, III, 669. Mapson, L. W. See Booth, V. H.

Mar, P. G., vitamin-A contents of Shanghai foods. II. Colorimetric assay of 25 common fishes, III, 594.

Marañon, G., pathogenesis of Cushing's disease, III, 439.

Maravalhas, N., oxidation of arsenious oxide by nitric acid, I, 341. Copper salts in therapeutics, III, 1054.

Marberg, K. See Reitler, R.

Marble, A. See Vartiainen, I.

Marchmont-Robinson, S. W., effect of vitamin-C on workers exposed to lead dust, III, 920.

Marcou, I. See Danielopolu, D.

Marcovich, A. W., Walker, A. E., and Jessico, C. M., effects of intrathecal injection of iodised oil, III, 996.

Marcus, M. D. See Weiss, R. S. Marcuse, R. See Runnström, J.

Marcy, L. F. See Voris, LeR.

Mardles, E. W. J., suspension of solids in mixed liquids, I, 40, 297.

Mareesh,  $\hat{M}$ .  $\hat{M}$ ., and Washburn, A. H., paranasal sinuses from birth to late

adolescence, III, 154.

Maresh, F., Lustok, M. J., and Cohen, P. P., physiology of rhenium compounds, III, 296.

Margenau, II., interaction of a-particles, I, 94. Statistics of excited energy states

of nuclei, I, 287. and Pollard, W. G., forces between neutral molecules and metallic surfaces, I, 402.

Margolese, M. S. See Macdonald, P. A. Margulies, E., paralysis of diaphragm as circulatory organ by excess water pressure during bathing [and danger of drowning], III, 653.

Marin, A., combined artificial fever, chemotherapy, and vaccinotherapy in neuro-

syphilis, III, 466. Marin, F. R. See Puente, H. A.

Marinesco, G., Sager, O., and Kreindler, A. encephalogram of pre-central region of man under normal and pathological conditions, III, 178.

Marinin, V. See Zvetkov, V.

Marinkovitch, R., albucid in gonorrhœa, 1II, 461.

Marion, A., adapting the polarising microscope for use as a polarimeter, I, 130.

Marion, L., reaction of polystyrenes with bromine [and with benzoyl hydrogen peroxide], II, 7.

and Ledingham, A. E., micro-analysis of gaseous hydrocarbons, II, 235.

and McRae, J. A., naphthalene derivatives from substituted y-phenylcrotonic esters, II, 44.

Mark, H., applications of kinetic theory to behaviour of long-chain compounds, I, 244.

and Simha, R., [degradation of longchain molecules], II, 186.

Mark, J., and Biskind, G. R., prolonged pellet administration to rats of estrone. œstradiol benzoate, and testosterone propionate, III, 441.

Mark, M. F. See Mosentbal, H. O. Markarian, E. A., ergosterol transformation on irradiation with ultra-violet light, II, 250. Properties of aqueous colloidal sterol solutions, III, 921.

Markees, S., relationship between intermediary fat and carbohydrate meta-

bolism, III, 32.

Marker, R. E., sterols. CVIII. Preparation of dihydroandrosterone and related compounds from diosgenin and tigogenin. CXIII. Sapogenins. XLII. Conversion of sapogenins into preg-

nenolones. CXXII., II, 11, 67, 257.

Crooks, H. M., jun., and Wittbecker,
E. L., sterols. CXVIII. Action of selenious acid on 45-pregnenediol and on △5-androstenediol, II, 172.

Jones, E. M., Turner, D. L., and Rohrmann, E., sterols. CX. Position of hydroxyl groups in chlorogenin, II, 263.

 and Krueger, J., sterols. CXII. Sapo-genins. XLI. Preparation of trillin; its conversion into progesterone, II, 68.

Shabioa, A. C., and Turner, D. L., sterols. CXXII. Sapogenins. LXIX. Structure of side-chain of sarsasapogenin; anhydrosarsasapogenic acid, ĬI, 369.

and Turner, D. L., sterols. CIX. and CXV. Sapogenins. XXXVIII. Di-CIX. and hydroisoandrosterone from diosgenin. XLIV. Relation between diosgenin and cholesterol, II, 198, 229.

Turner, D. L., Shabica, A. C., Jones, E. M., Krueger, J., and Surmatis, J. D., sterols. CVII. Steroidal sapogenins of Alestris, Asparagus, and Lilium, II, 50.

Turner, D. L., Shabica, A. C., and Ulshafer, P. R., sterols. CXXI. Sapogenins. XLVIII. Bromosarsasapogenin and bromodiosgenin, II, 199.

Turner, D. L., and Ulshafer, P. R., sterols. CIV. Diosgenin from American plants. CXI. and CXIV. Sapogenins. XL. Conversion of chlorogenin into

tigogenin. XLIII. Oxidation products from tigogenin, II, 171, 263; III, 62.

Turner, D. L., Wagner, R. B., and Ulshafer, P. R., sterols. CXVI. Sapogenins. XLV. isoSarsasapogenin con-

figuration, II, 199.

Turner, D. L., Wagner, R. B., Ulshafer, P. R., Grooks, H. M., jun., and Wittle, E. L., sterols. CXVII. and CXIX. Sapogenins. XLVI. Structure of  $\psi$ -XLVII. Pregnanetriols sapogenins. from  $\psi$ -sapogenins, II, 168.

and Wittbecker, E. L., sterols. CXX. Anterior pituitary gland extracts, II, 194.

Markevitsch, I. T., iodine-starch reaction in presence of proteins, III, 46.

and Turbina, N. D., physical chemistry of pathological blood and serum. I. and II., III, 330.

See also Cholodova, M.

Markham, A. E., acetone-ether mixtures for drying glassware, I, 132. Density of perchloric acid solutions, I, 250.

and Kobe, K. A., solubility of carbon dioxide and nitrous oxide in aqueous salt solutions, I, 205. Solubility of carbon dioxide in aqueous solutions of sulphuric and perchloric acids at 25°, I, 253. Volume change on mixing gases, I, 296.

Markoff, N., pathogenesis of endemic sprue, III, 375. Myelogenous osteopathy, III, 546. Bone-marrow smears in normal and pathological pregnancies, III, 551.

Markov, T. S. See Kobe, K. A. Markov, V. P. See Kritschevski, I. R. Markowitz, J. See Waters, E. T.

Marks, H. C. See Beckmann, C. O. Marks, H. H. See Fischer, A. E.

Marks, H. P., mouse method for assay of insulin, III, 350.

and Young, F. G., metabolism of dogs made permanently diabetic by treatment with anterior pituitary extract, III, 187. Pancreotropic factor of anterior pituitary, III, 266. See also Griffiths, M.

Marks, M. B., accidentally transmitted malaria [through intramuscular injection of whole blood], III, 829.

Marks, M. I. See Baumoel, S.

Marks, T. M., Thomas, J. M., and Warkany, J., adrenocortical obesity in children, III,

Markus, H. T. See Dolgopol, V. B. Marlow, H. W. See Groetsema, F., and

Sealey, J. L.

Marmont, J., action potential artifacts from single nerve fibres, III, 498.

Maron, F. S. See Mikulinski, A. S. Maron, S. H., and Turnbull, D., activity coefficients of gases; calculation from Beattie-Bridgeman equation of state, I, 161. Generalised equation for activity coefficients of gases, I, 161. Calculating Beattie-Bridgeman constants from criti-

cal data, I, 200.

Marotta, A. J. See Hurd, C. B.

Marple, K. E. See Tamele, M. W.

Marples, E. See Levine, S. Z.

Marquez, A. R., aliphatic arsinic acids. III. Mono- and di-arsinomalonic acids, II, 123. Marrazzi, A. S., correlation between structure and ratio of inhibitory to pressor activity of sympathomimetic amines, III, 910.

See also Sheehan, D.

Marrazzi, R., influence of adrenalectomy and fasting on intestinal absorption of

carbohydrate, III, 1016.

Marriott, H. L., respirator as oxygen apparatus, III, 251.

See also Bushby, S. R. M., and Kekwick, A.

Marriott, W. See Borsook, H. Marsal, A., renal phosphatase. I. Extraction and purification, III, 226. Marsh, D. F. See McCawley, E. L. Marsh, D. G. See Warren, M. R.

Marsh, G., and Carlson, L., injection manometer for study of reactions, III, 63. Marsh, J. K., hydrated nitrates of rare earth elements, I, 481.

Marsh, R. P., and Shive, J. W., boron as a factor in calcium metabolism of maize plant, III, 939.

Marshak, A., uptake of radioactive phosphorus by nuclei of liver and tumours, III, 458.

Marshak, R. E., and Weisskopf, V. F., scattering of mesons of spin h/2 by atomic nuclei, I, 316.

Marshall, C., and Nims, L. F.,  $p_H$  of cerebral cortex in relation to that of arterial blood, III, 255.

Nims, L. F., and Stone, W. E., chemical changes in cerebral cortex following local thermocoagulation and local freezing, III, 742. See also Nims, L. F.

Marshall, C. E., degree of dispersion of clays. IV. Shapes of clay particles, I, 184.

and Bergman, W. E., electrochemical properties of mineral membranes. I. Estimation of potassium ion activities, I. 419.

See also Ells, V. R., and Tomkeieff, S. I. Marshall, E. K., jun., Bratton, A. C., White, H. J., and Litchfield, J. T., jun., sulphanylguanidine: chemotherapeutic agent for intestinal infections, III, 786.

See also Litchfield, J. T., jun.

Marshall, F. H., obtaining powders of uniform sodium chloride crystals in various size ranges, and effect of size on intensity of X-ray reflexion, I, 18.

Marshall, G. S., clinical manifestations of

oxygen lack, III, 981.

Marshall, W. H., subcortical somatic sensory mechanisms of cats under nembutal anæsthesia, III, 742.

Woolsey, C. N., and Bard, P., cortical somatic sensory mechanisms of cat and monkey, III, 742.

Marston, H. See Irving, H. Marston, H. R., and Dewey, D. W. determination of cobalt in plant and animal tissues, III, 407.

Marth, P. C. See Gardner, F. E.

Marti, R., development of peripheral lymphatics in human feetus, III, 239. Marti, T., anthraquinone purgative, III,

464. Martin, A. B. See Cinnamon, C. A. Martin, A. J. P., tribo-electricity in wool and hair, I, 158.

and Synge, R. L. M., separation of higher monoamino-acids by countercurrent liquid-liquid extraction: amino-acid composition of wool, II, 88. Applications of periodic acid to study of hydroxyamino-acids of pro-tein hydrolysates. I. Liberation of acetaldehyde and higher aldehydes by periodic acid. II. Detection and isolation of formaldchyde by periodic acid. III. Ammonia split from hydroxyamino-acids by periodic acid.

IV. Hydroxyamino-acid fraction of wool. V. "Hydroxylysine," II, 179.

Martin, Albert R. See Whistler, R. L.

Martin, Austin R., and Hermann, R. N., emulsions. I. Mechanism of emulsification of a standard emulsion in sodium oleate solution and nature of adsorption at interface. II. Partial coagulation of a standard emulsion in sodium oleate solution by salts of bi- and multi-valent metals, I, 81.

See also Adams, A. H.

Martin, A. W. See Krems, A. D. Martin, C. P., and Banks, J., amount of

mucosal tissue in small intestine, III, 1. Martin, D. W., and Fogel, D. H., oral typhoid-paratyphoid vaccine, III, 933.

See also Pincus, G.

Martin, E. See Roch, M. Martin, G. J., use of osteotropic dyes in modified line test for vitamin-D, III, 287.

and Ansbacher, S., chromotrichial activity of p-aminobenzoic acid, III, 521.

and Lischer, C. F., polyhydroxyanthraquinones affecting coagulation time in vitamin-K deficiency, III, 288.

Rennebaum, E.H., and Thompson, M.R., inhibition of conjugation of sulphanilamide, III, 692.

Martin, H. E., and Greeley, P. O., timeactivity curves of protamine-zinc-insulin, III, 571.

Greeley, P. O., and Soll, S., fasting insulin requirement of severe diabetic, III,

and Reese, A. B., treatment of retinoblastoma (retinal glioma) by combination of surgery and radiation, III, 865.

Martin, J., and Davis, L., syndrome of destruction of pineal gland, III, 1004.

Martin, J. M. See Orgain, E. S. Martin, J. W. jun. See Hayman, J. M.,

Martin, L., and Pennel, V., exophthalmic ophthalmoplegia, III, 501.

Martin, M. See Ratcliffe, A. W. Martin, R. See Baker, F.

Martin, R. H. See Hewett, C. L. Martin, S. J. See Adriani, J.

Martin, W. H., Bett, H. D., Romans, R. G., and Tidridge, W., photochemical transformation of trans- into cis-di-p-toluoyl-

ethylene, I, 54.
Martin, W. J., mortality from lobar pneumonia [relation to chemotherapy], III, 459.

See also Hoard, J. L.

Martindale, F. M., initiation and early development of thyrotropic function in

martineau, R. See Gagnon, P. E.

Martineau, R. See Lacoste, A.

Martins, T. See Fraenkel, L.

Martinson, E. E., and Fetisenko, I. V.,

effect of ascorbic acid and cysteine on urea production in the perfused liver, 11, 602.

Marton, L., McBain, J. W., and Vold, R. D., electron microscope study of curd fibres of sodium laurate, I, 412.

Martsehevski, A. T., and Uschakov, M. I., synthesis of 10-cyclohexyl-2-methyl-anthracene, II, 247.

Martsehuk, P. D., preparation and conservation of anti-reticular cytotoxic serum, III, 169.

Maruchian, D. A., cuprammine salts, II, 74. Marukian, G. M. See Balandin, A. A. Maruschkin, M. See Balandin, A. A.

Maruta, K., velocity of blood flow in Graves' disease and thyrotoxicosis, III, 436.

Maruyama, K., adrenal tumour in old man, III, 454.

Marvel, C. S., and Botteron, D. G., m-bromon-alkylbenzenes, II, 246.

Copley, M.J., and Ginsberg, E., hydrogen bonds involving the C-H linking. XI. Effect of structure on bonding of donor and acceptor molecules. XII. The C-H←F linking, I, 265.

Dec, J., and Cooke, H. G., jun., structure of vinyl polymerides. XI. Optically active polymerides from active vinyl esters; studying the kinetics of polymerisation, II, 83.

Dec, J., Cooke, H. G., jun., and Cowan, J. C., structure of vinyl polymerides. X. Polymerides of a-halogenoacrylic acids and their derivatives, II, 83.

and Harkema, J., hydrogen bonds involving the C-H linking. XV. Nonbonding of triphenylmethane hydrogen atoms, II, 364.

Kaplan, J. F., and Himel, C. M., alkylhexa-arylethanes. XI. substituted Symmetry and steric effects as factors in dissociation, II, 284.

Marvel, C. S., and Patterson, L. A., cyclisation of dieninenes. XI. Ring closures with di - 42 - octahydro-2 - naphthylacetylenes; synthesis of perhydro-9-

phenanthrone, II, 357.
Pearson, D. E., and Patterson, L. A., cyclisation of dieninenes. VIII. Ringclosures with α- and β-cyclohexenylacetylene derivatives of octahydro-

naphthalene, II, 15.

Pearson, D. E., and White, R. V.,
eyelisation of dieninenes. X. Dodecahydrophenanthrone obtained from dicyclohexenylacetylene, II, 15.

and Riddle, E. H., structure of vinyl polymerides. IX. Catalysts, II, 3.

and White, R. V., cyclisation of dieninenes. IX. Synthesis of perhydrophenanthr-9-one, II, 15. See also Copley, M.J.

Marvell, D. M., and Parish, H. J., tetanus prophylaxis and circulating antitoxin, III, 537.

Marx, L., and Bradbury, J. T., correlation of ovarian histology and intersexuality of genital apparatus, with special reference to APL-treated infantile rats, III,

192.

Marx, R. See Dyckerhoff, H.

Maryott, A. A., Hobbs, M. E., and Gross, P. M., bond moment additivity and cleetric moments of halogenated hydro-carbons, I, 194. Electric polarisation of carboxylic acids in dilute solutions of non-polar solvents. II. Polarisation of heavy acetic acid and of the three fluorobenzoic acids in benzene and the anomalous polarisation of the dimeride, I. 298.

Maschmann, E., activation of serum-peptidase, III, 1062.

Maschtaler, G. A., recapitulation in development of feather colour in birds, III, 548. Masket, A. I., quantity type rotor for

ultracentrifuge, I, 307.

Maslov, N. J., action of oxides of nitrogen on unsaturated ethers. I. Action of nitrous anhydride on methyl allyl ether, 11, 311.

Maslow, L. A. See Arendt, J.

Mason, C. M., osmotic and activity coefficients of tervalent chlorides in aqueous solution at 25°, I, 168.

Mason, H. L., and Williams, Ray D., effect of ingestion of nicotinic acid on determination of ancurin in urine by thiochrome method, III, 892.

See also Smith, K. A., and Williams, Ray D.

Mason, J. P., and Ross, S. D., morpholinomethyl ketones, II, 54.

See also Block, H. W., and Manning, J. F. Mason, K. E., and Bryan, W. L., placental and mammary transfer of vitamin-E in the rat, III, 779.

Mason, M. F., Robinson, C. S., and Blalock, A., renal arterial blood pressure and metabolism of kidney tissue in experimental hypertension, 111, 423.

See also Blalock, A.

Mason, M. L., Allen, H. S., Queen, F. B.. and Gibbs, E. W., one thousand consecutive appendectomies, III. 767. Mason, T. G. Sec Phillis, E.

Mason, W., frozen sections on rocking

microtome, III, 160.

Mason, W. P., location of hysteresis phenomena in Rochelle salt crystals, 1.

Masood, S., Siddiqi, A. W., and Qureshi, M., chlorophyll. II. Separation of chlorophyll-a and -b by the chromatographic method with carbamide as adsorbent,

Masselin, J. N., seasonal variations in histology of hypophysis in Bufo arenarum, III, 869.

Massengale, J. T. See Morton, A. A. Masserman, J. H., stimulant effects of ethyl alcohol in cortico-hypothalamic functions, III, 219.

Massey, H. S. W., and Buckingham, R. A.,

collisions of neutrons with deuterons and nature of nuclear forces, I, 94.

and Mohr, C. B. O., polarisation of electrons by double scattering, I,

See also Bates, D. R., and Buckingham.

Massler, M., Schonr, I., and Poncher, H. G., developmental pattern of child as reflected in calcification pattern of teeth, III, 823.

Masson, R., geological-petrological studies in the lower Valpelline, Aosta Province

(Italy), I, 92.

Mast, S. O., and Hopkins, D. L., regulation of water content of Amaha mira, and adaptation to osmotic changes in surrounding medium, III, 386.

Masten, M. G. See Gowan, L. R. Master, A. M., Dack, S., and Jaffé, H. L., premonitory symptoms of acute coronary occlusion, III, 560. Rôle of effort, trauma, work, and occupation in coronary artery occlusion, III, 651.

Gubner, R., Dack, S., and Jaffé, H. L., coronary insufficiency and acute coronary occlusion, III, 651.

and Jaffé, H. L., electrocardiographic changes after exercise in, angina pectoris, III, 651.

See also Friedman, R.

Mastin, T. G. See Crowell, W. R.

Mastropaolo F., R. A., preparation of multivalent dodo-compounds in o-, m-, and p-iodoanisole series, II, 63.

See also Zappi, E. V. Masuda, T. See Nishina, Y.

Matanovitch, M., acetylcholine in urine, III, 681.

Matarese, G. See Cianci, V.

Matchett, J. R., and Levine, J., device for continuous liquid-liquid extraction; adaptation for the determination of morphine, I, 350. Determination of acetyl group, II, 156.

See also Robinson, B. B.

Matenko, E. J. See Kulberg, L. M. Mathers, R. G., glutamic acid in tumour

hydrolysates, III, 1028.

Matheson, G. L. See McAlister, E. D. Matheson, M. S. See Herr, D. S.

Mathews, F. P., toxicity of Sartwellia flaveriæ to goats, III, 790. Mathews, G. B. See Chang, J.

Mathis, G. See Mutermilch, S.

Mathack, M. B., fatty constituents of
California Valencia orange pulp (Citrus
aurantium sinensis, L.), 111, 150.

Matrosovitsch, D. N., importance various sterols for swelling of gelatin, I, 262.

Matschus, F. F. See Packendorf, K.

 Matsuda, H. See Tsuda, K.
 Matsuda, R., and Ikuta, S., relation between Kolbe's reaction and p<sub>H</sub>. VIII. I. 17.

Matsuda, S., counteraction of toxic effects of quinine, III, 42.

Matsui, E., styrene substitutes and their polymerides. I. Methylstyrene and its polymeride, II, 164.

Matsumoto, E. See Shibata, Y.

Matsumura, S., Tarama, K., and Kodama. S., synthesis of paraffins. III., II, 25.

Matsuoka, Y., hyperhæmatism. I. Influence of cholagogues on liver function. II. Incretory glands and hyperhæmatism. III. Influence of lecithin on liver function. IV. Influence of l-aspartic acid on liver function, III, 106.

Matthes, S., vitamin-C metabolism in

athletes, III, 118.

Matthews, C. S., Emery, F. E., and Schwabe, E. L., regressive changes in reproductive system of male rats induced by stilbæstrol, III, 677. See also Russell, H. K.

Matthews, L. H., reproduction in spotted hyena, Crocuta crocuta, Ill, 99.

Matthews, M. W., treatment of chronic

infectious arthritis, III, 919.

Matthews, N. L., Brode, W. R., and Brown, J. B., chemistry of fatty acids. VII. Multiple nature of linoleic and linolenic acids prepared by the bromination-debromination procedure; purification of these acids by repeated lowtemperature crystallisation, II, 184.

Matthews, V. J., dental dietetics, III, 208,

Mattice, M. R. See Bridges, M. A.
Mattick, E. C. V. See Shattock, P. M. F.
Mattill, H. A. See Deatherage, F. E., and Friedman, L.

Matubara, Y., effect of teorgan on blood vessels, III, 1049.
Matukawa, T., vitamin-B<sub>0</sub>. I. Isolation

of vitamin-Bs, III, 893.

Matuo, G., change of colloids by X-rays and relation between colloidal stability

and radiosensitivity, III, 1060.

Matuschak, (Miss) M. C. See Cox, G. J.

Matuszeski, J. F. See Whitmore, F. C.

Matuzaki, S., oligolytic concentration of salt solution for erythrocytes of various species of animals, III, 828.

Matveev, V. M. See Danilov, S. N. Matzkevitsch, P. P. See Minina, E. G.

Matzner, M. J., Windwer, C. J., Gawron, O., and Sobel, A. E., variations in composition of gastric juice, III, 361. See also Kogut, B.

Matzurevitsch, I., action of ammonia and hydrazoic acid derivatives on semicarbazones, oximes, and semioxamazones of  $\Delta^2$ -cyclohexenones, II, 136.

Maude, J, optical covergence and stereopsis in relation to perspective, III, 257. Keeping the eyes on the ball, III,

Maumenee, A. E., Hellman, L. M., and Shettles, L. B., plasma-prothrombin in newborn infant, III, 726.

Maun, M. E., influence of coronary sclerosis, chronic congestive heart failure, and

myocardial fibrosis on cardiac hypertrophy, III, 732.

Maunsell, P. W., determination of boron

by means of quinalizarin, I, 386. Maurer, F. IV. See Drinker, C. K. Maurer, R. J. See Hippel, A. von.

Maurice, C. S. pegmatites of Spruce Pine district, N. Carolina, I, 63.

Mautner, H., and Luisada, A., antagonistic effect of asphyxia to curare paralysis of the vagus nerve, III, 1049.

Maver, M. E., Johnson, J. M., and Thompson, J. W., d-peptidase activity of serum as alleged diagnostic test for cancer, III. 1028.

Mavrogordato, A., Witwatersrand silicosis, III, 43.

Mawson, E. II. See Boyland, E.

Maxim, M., serum-vitamin-C and -carotene of slaughterhouse animals and fowls, III, 649.

Maximova, S. V., and Rushentzev, V. E., distribution of ammonites in the Lower Permian of the Urals and resulting stratigraphic conclusions, I, 181.

Maximovitsch, G. A., classification of volcanoids, I, 356.

Maxted, E. B., and Morrish, R. W. D., catalytic toxicity and chemical structure. VII. Elimination of catalyst poisons by conversion into derivatives of shielded type, I, 216.

Maxwell, C. H., Cullen, B. L., and Thomas, R. G., diphtheria susceptibility in well-

immunised community, III, 801.

Maxwell, J. P., cataract in adult rickets (osteomalacia), III, 503.

Maxwell, J. T., muscle balance determinations at reading distance, III, 998.

Maxwell, L. R., optical methods for study molecular structure: electronic diffraction method, I, 366.

May, C. D., and McCreary, J. F., absorption of vitamin-A in collac disease, III, 593. Glucose tolerance test in coliac disease [relation to gastro-intestinal tone], III,

May, E., Bloch-Michel, H., and Prin, A., cardiac disorders of menopause, III, 561. May, (Miss) E. L. See Mosettig, E.,

Price, D., and Weinstock, H. H., jun. May, L., Taylor, H. A., and Burton, M., free radicals in photolysis of propaldehyde,

May, R., fluorine content of drinking water in districts with endemic goitre, III, 183.

May, R. L. See Smith, G. F.

Maycock, W. d'A. See Kekwick, A. Mayeda, S., Ueda, Kiiri, Tsurumi, M.,

and Pan, C. C., feeding experiments with decomposition products of proteins. XVI., III, \$90. Mayer, A. See Alvarez, W. C.

Mayer, J. B., feeding experiments with acid milk, III, 454.

Mayer, J. E., and Montroll, E., molecular

distribution, I, 101.

Mayer, M. D. See Newman, H. F.

Mayerhofer, E., atypical poliomyelitis and its relation to infantile acrodynia, III, 89.

and Dragišić, B., infantile pellagra; its position in system of acropathic diseases, III, 25.

Mayfield, C. R., and Gober, M., comparative efficiency of plating media for isolation of Shigella dysenteriæ, III, 628.

 $\begin{array}{lll} \textbf{Mayfield}, \ F. \ D. & \text{See Schoch}, \ E. \ P. \\ \textbf{Mayfield}, \ H. \ M. & \text{See Wick}, \ A. \ N. \\ \textbf{Mayman}, & E. \ W., & \text{erythroblastosis} & \text{in} \end{array}$ icterus gravis neonatorum successfully treated with vitamin-K, III, 328.

Maynard, L. A. See Barnes, L. L., and McCay, C.M.

Mayne, A. See Berg, M., and Petersen, W. F.

Mayner, F., death from plasma transfusion,

Mayo, C. W., and Schlicke, C. O., exogenous tumours of thyroid gland, III, 571.

Mayo, F. R., Hardy, W. B., and Schultz, C. G., cleavage of diethyl ether by hydrogen bromide, II, 117.

Mayon-White, R., and Solandt, O. M., crush injuries with impairment of renal function, III, 448.

Mayr-Harting, A. See Burton, H.

Mays, A. T., agranulocytosis following administration of arsphenamines and

bismuth, III, 916.
Mazer, C., Israel, S. L., and Ravetz, E., stilbæstrol, III, 509.

Mazia, D., and Mullins, L. J., radioactive copper and mechanism of oligodynamic action, III, 636.

Mazumdar, S. R. See Mookerjee, H. K. Mazur, A., sponge sterol, II, 167.

Mazzocco, P., seasonal variations in weight and chemical composition of fatty bodies of Bufo arenarum, Hensel, III,

Mchitarian, V. G., synthesis of alkyl ethylene orthoformates, II, 58.

Mead, J. F. See Niemann, C.

Mead, T. H. See Braude, R.

Meads, P. F., Forsythe, W. R., and
Giauque, W. F., heat capacities and entropies of silver and lead from 15° to 300° k., I, 369.

See also Giauque, W. F.

Meaker, S. R., and Vose, S. N., human infertility, III, 270.

Meakins, J. C., shock, its cause and treatment, III, 82!

Méan, H. See Rossier, P. H. Means, J. H., diagnosis and treatment of hyperthyroidism, III, 261.

Means, J. W. See De Lor, C. J. Mears, W. H. See Kilpatriek, M.

Meecheri, L. A., hamoglobin concentration in blood of adults in Buenos Aires, III, 724.

Meechi, E. See Almquist, H. J., and Stokstad,  $E.\ L.\ R.$ 

Medawar, P. B., growth, growth energy, and ageing of chickens' heart, III, 77. Penetration of fixatives, III, 958.

Sec also Young, J. Z. Medearis, D. N., fatal lead encephalopathy in child of 10 months, III, 529.

Medgyesi, E., hormones, III, 867.

Medinger, F. G., malignant tumours of small intestine, III, 453.

Medinski, C. B., reaction between sulphur dioxide and oxides of nitrogen. I. Reaction in sulphuryl chloride solution, I,

Medox, C. V., and Dobrovolskaja, N. K., 4-hydroxy-3-sulphobenzoic acid, II, 65. and Krilov, A. V., gravimetric determination of permanganate, I, 281.

Medvedev, S. See Kamenskaja, S., and Mamontova, O.

Medvedeva, N. B., thermal conductivity of skin of guinea-pigs, III, 203. Phosphoric acid in utilisation of sugar, III, 212. Biological importance of sulphur, III, 603. Repeated stimulation of connective tissue and its effect on adult and old animals [by antireticular cytotoxic serum], III, 832. Action of cytotoxic sera on blood composition and its modifications by blood transfusion, III,

Meek, J. M. See Loeb, L. B.Meek, S. F. See McCord, C. P. Meek, W. J. See Jacobi, H. P.

832.

Meeker, D. R., and Kesten, H. D., experimental atherosclerosis and high-protein diets, III, 249, 496.

Meersseman, F., hepatic chondriome in

guinea-pig, III, 321.
Meerzon, T. J., and Schleifer, K. M., effect of oxidising and reducing agents on hydrolytic activity of pancreatic and hepatic lipases, III, 704.

Meeteren, A. van. See Hartz, P. H.

Meggers, W. F., physical basis for spectrographic analysis, I, 217.

Megibow, R. S., and Katz, L. N., auriculoventricular conductivity, III, 247. See also Katz, L. N.

Mehkri, S., congenital retinal fold, III, 90. Mehl, R. F. See Barrett, C. S., and Wells,

Mehlig. J. P., colorimetric determination of copper with ammonia, I, 483.

Mehrling, J. H. See Monfort, J. A.

Mehta, B. S., Bokil, K. V., and Nargund, K. S., synthesis of γ-ketobutyric acids with anisyl or methoxytolyl groups as substituents in the a- and y-positions, II, 102.

Meibohm, A. W. See Wood, J. H. Meibohm, E. P. H. See Haden, W. L., jun. Meijer, T. M., absorption spectra of derride, isorotenone, malaccol, toxicarol, and sumatrol, I, 446.

Meiklejohn, A. P. See Kark, R. Meiklejohn, G. T., and Stewart, C. P., determination of vitamin-C in urine, III. 895. Ascorbic acid oxidase from cucumber, III, 922.

Meiklejohn, J., aërobic denitrification, 111,

Meiller, F. H. See Fitzhugh, O. G. Meinzer, O. E., and Wenzel,

hydraulies of ground water, 1, 181.

Meis, A. M. See Hammer, D. L. Meisel, M. N., morphological and physiological modifications induced in cells by

vitamin-B<sub>1</sub>, III, 471.

Meissner, G. See Hesse, E.

Meissner, H. P., and Paddison, O. H., jun., P-V-T relations for saturated liquids, I, 458.

Meissner, W. A. See Brill, I. C.

Meites, J., Bergman, A. J., and Turner. C. W., relation of size of litter to lactogen content of pituitary of nursing rabbits, III. 1007.

Meites, M. See Guetrot.

Meitner, L., resonance energy of thorium capture process, I, 360.

Melampy, R. M., and Olsan, R. D., total carbohydrate and glycogen content of developing bee, III, 289. See also McCleskey, C. S.

Meldrum, W. B., Cadbury, W. E., jun., and Lucasse, W. W., determination of sulphate in presence of chromate, I, 426.

See also Cadbury, W. E.

Meleney, F. L. See Longacre, A. B.

Melenteev, P. V., and Todes, O. M.,
theory of thermal explosions. III. In autocatalytic reactions, I, 381.

See also Todes, O. M. Mellanby, E., vitamin-A deficiency and skeletal changes affecting nervous system

[young dog], III, 741. Mellanby, K., temperature acclimatisation

in amphibia, III, 298.

Mellgren, J., pathology and origin of intramesenteric diverticula of small intestine,

Mellicker, M. C. See Helff, O. M. Mellinghoff, K., and Voges, G., action of depot insulin in normal subjects, III, 96. Mellish, C. H. See Torstveit, O.

Mellor, D. P., unit cell and space-group of casium cupric chloride, I, 154.

Application of co-ordination compounds, I, 243. Significance of large bond angle distortions in relation to stereochemistry and magnetic properties of quadricovalent metals, I, 246.

and Craig, D. P., magnetic studies of co-ordination compounds. III. Nature of bonds between nickel and nonmetallic atoms. IV. Square co-ordinated cobaltous compounds, I, 450.

and Lockwood, W. H., magnetic studies of co-ordination compounds. II. Effect of distortion of valency bond derivatives of substituted pyrromethenes, II, 232.

See also Dwyer, F. P., and Quodling, F. M.

Melniek, D., Robinson, W. D., and Field, H., jun., urinary excretion of nicotinic acid and its derivatives by normal individuals, III, 118. Influence of excretion of other pyridine compounds on interpretation of urinary nicotinic acid values, III, 118. Concentration and distribution of blood-nicotinic acid, III, 167. Fate of aneurin in digestive secretions, III, 595.

See also Field, H., jun. Melnick, J. L. See Stern, K. G.

Melnick, P. J. See Halley, E. P.

Melnik, A. A. See Zaprometov, B. G.

Melnikov, N. N., and Rokitzkaja, M. S., oxidation of organic compounds by selenium dioxide. VII. Substituted VIII. Isomeric acetophenones.

ketones, II, 281, 323. See also Tscherkasova, E. M.

Melnikova, E. P. See Vanscheidt, A. A. Meloche, V. W. See Hiskey, C. F., Klatt, T., and Knudson, H. W.

Melroy, M. B. See Spencer, R. R.

Melton, F. A., classification of sand dunes; application to Southern High plains, I, 435.

Melton, G., sulphathiazole in staphylococcal infections, III, 607.

See also Ewins, A.J.

Meltsner, M., Waldman, E., and Kremer, C. B., preparation of aromatic oxazolidines, II, 77.

Meltzer, H., and Dieffenbach, E., inorganic changes during healing of fractures, III, Ĭ8.

Meltzer, R. I. See Dauben, W. G. Melville, D. B. See Du Vigneaud, V.,

and György, P. Melville, H. W., chemistry of macromolecules, I, 381.

Melville, J., Coop, I. E., Doak, B. W., and Reifer, I., cyanogenesis in white clover (Trifolium repens, L.). IV., III, 944.

and Doak, B. W., cyanogenesis in white clover (Trifolium repens, L.). II. Isolation of glucosidal constituents, III, 944.

Member, S., Ehrlich, S. B., and Bruger, M., distribution of cholesterol between blood cells and plasma in rabbit and man, III, 839.

McDevitt, E., and Ludden, J. B., scrum-cholesterol following administration of acetyl-β-methylcholine chloride by iontophoresis, III, 613.

Mendelson, R. See Trotzki, J. Mendelssohn, K., specific heat of super-

conductive tantalum, I, 457.

See also Macintosh, R. R. Mendenhall, E. E. See Higgins, C. C. Mendes Alves, M., effect of aldehydes on isolated uterus and intestine, III, 192.

Mendive, J. R. See Scott, D. A. Mendlowitz, M., blood flow and blood pressure in clubbed fingers, III, 975.

Meneely, G. R., and Kaltreider, N. L., use of helium for determination of pulmonary capacity, III, 735. Manually operated ergometer, III, 736.

Menefee, S. G., and Overman, O. R., semi-micro-Kjeldahl method for determination of total nitrogen in milk,

III, 586.

Meng, C. W. See Chang, H. C. Meng, H. C. See Yi, C. L.

Menke, J. F., extraction of carcinogenic factor from primary human mammary cancer, III, 111.

Menotti, A. R. See Rothemund, P. Menten, M. L., and Smith, M. P., patho-

logical alterations in lipin content of adrenals in infancy and childhood, III,

Menzel, D. H., Goldberg, L., and Cook, E. M., Rowland intensity scale, I, 309.

See also Shortley, G. H.

Menzies, A. W. C. See Eddy, R. D. Mer, G., Birnbaum, D., and Kligler, I. J., lysis of blood of malarial patients by bile or bile salts, III, 644.

Meranze, D. R. See Meranze, T.

Meranze, T., Meranze, D. R., and Rothman,
M. M., value of serum-phosphatase in diseases of liver, III, 584.

Merchant, I. A. See Karlson, A. G. Mercier, F., and Vieu-Bonnafous, J., hypoglycæmic activity of seeds of of seeds of Syzigium jambolanum (Lam.),

Mercier, L., heredity of lymphosarcoma in mouse, III, 206.

Merckoll, A. Sec Steinkopf, W.

Meredith, R. H., combined nupercain spinal and cyclopropane anæsthesia, III, 614.

Meredith, T. N. See Thomas, H. W.
Mereshinski, M. F., Kobilin, A. A., and
Kazakova, V. T., effect of insulin injection on glucose and chloride contents of blood, III, 756.

Merk, R., central nervous lesions sin rabbits] due to low atmospheric pressure,

Merkelbach, O., fluorescence of normal and pathological urine, III, 366.

Merlis, J. K., effect of changes in calcium content of cerebrospinal fluid on spinal reflex activity in dog, III, 995.

Merner, R. R. See Emerson, W. S. Merriam, R., southern California ring-dike, I, 284.

Merrill, G. A. See Rothberg, A.

Merrill, R. C., jun. See McBain, J. W. Merritt, E. A., and Caulk, R. M., X-ray therapy of hyperparathyroidism, III,

Merritt, H. H., and Foster, A., vitamin-C in epilepsy, III, 119.

Mertzlin, R. V., and Krupatkin, I. L., application of method of sections to determination of equilibria in ternary systems with solid phases, I, 415. Merwe, C. W. van der. See Bacon, R. H.

Mesaki, T., effect of pineal function on sex cycle and hormones. I. Effect on sexual cycle. II. Effect on response to cestrogen and pituitary hormones. 111. Effect of injecting immature rabbit pineal extract. IV. Effect of extirpation, III, 1004.

Meschan, I. See Brody, D. A.

Meschkova, N. P., transformation of carnosine in the organism; fate of parenterally administered carnosine, III, 781.

Meshenni, J. F., cryoscopic investigation of halides of lithium, rubidium, and cæsium in a nitrobenzene solution of aluminium bromide, I, 371.

Meshueva, K. I. See Skljarenko, S. I. Messerly, G. H., triple point pressure of

hydrogen, I, 329.

and Kennedy, R. M., heat capacity and entropy, heats of fusion and vaporisation, and vapour pressure of n-pentane, I, 199.

See also Aston, J. G.

Mészáros, K., neuritis caused by tetanus immunisation, III, 311.

Metcalf, R. P. See Westheimer, F. H.

Metcalfe, G., watermark disease of willows. II. Pathological changes in wood, III, 636.

Metcoff, J. See Starr, P.

Metropolis, N., electronic bands of polyatomic molecules. I. Prolate approximation for XY<sub>2</sub> molecules, I, 445. Vibrational analysis of absorption system of sulphur dioxide at  $\lambda^{2}3400-2600$ , I, 445.

Metten, H., tadpoles out of season [effect of pituitary on ovulation], III,

Mettier, S. R., hæmatologic aspects of spaceconsuming lesions of bone marrow (myelophthisic anæmia), III, 164.

and Capp, C. S., neurological symptoms and clinical findings in patients with cervical degenerative arthritis, III, 854. See also Buell, A., and Kellogg, F.

Mettler, C. C. See Mettler, F. A.

Mettler, F. A., and Mettler, C. C., labyrinthine disregard after removal of caudate, III, 565.

Metz, E., cardiac lesions due to heat stroke revealed in electrocardiogram, III, 973. Metzger, J. See Sharpless, G. R.

Meulemans, O. See De Haas, J. H. Meunier, A. C. See Simons, J. H.

Meunier, P. See Dreyfuss, A. Meunier, P. L. See Whitmore, F. C.

Meuron, H. J., calibration of flowmeters,

I, 180.

Meyer, B. S., and Heritage, A. C., effect of turbidity and depth of immersion on apparent photosynthesis in Ceratophyllum

demersum, III, 401.

Meyer, C. E. See Smith, A. H.

Meyer, E. See Pompeo, D. J.

Meyer, F. A., rhythmic variations of blood-sugar levels in normal subjects, III 221 III, 331.

Meyer, F. L. See Hathaway, M. L. Meter, G. E. See Cohan, L. H.

Meyer, H., change of charge of helium canal rays in gases, I, 23.

Meyer, Jacob, and Necheles, H., salivary gastric, and pancreatic secretions in old age, III, 361.

Meyer, Jacques. See Sartory, A.

Meyer, K., Bloch, H. S., and Chamberlain, W. P., distribution of sulphapyridine between blood, aqueous humour, and cornea, III, 502.

Meyer, K., and Chaffee, E., mucopolysaccharide acid of cornea and its enzymic hydrolysis, III, 433. Mucopolysaccharides of skin, III, 515.

Meyer, K. A., Amtman, L., and Perlman, L., islet cell tumour of pancreas, III,

1006.

Meyer, K. F. See Lazarus, A. S., and Veazie, L.

Meyer, K. H., properties of polymerides in solution. XVI. Statistical interpretation of thermodynamic properties of binary liquid systems, I, 40.

and Bernfeld, H. P., constitution of amylopectin, II, 87. Kinetics of degradation of starch by wheat amylase, III, 303.

and Bernfeld, P., starch. XIV. Colour reaction of starch and glycogen with iodine, II, 212.

Bernfeld, P., and Press, J., starch. VIII. Degradation of constituents of starch by  $\beta$ -amylase, II, 59.

and Fuld, M., starch. XII. Arrangement of the glucose residues in glycogen, II, 213.

Fuld, M., and Klemm, O., constitution

of silk fibroin, II, 79.

and Press, J., starch. IX. Degradation by  $\beta$ -amylase and law of mass action. X. Degradation of glycogen by β-amylase, II, 186, 187.

and Straus, W., permeability of membranes. VI. Passage of an electric current across selective membranes, I, 166.

and Wertheim, M., mol. wt. and constitution of natural caoutchouc, II,

Wertheim, M., and Bernfeld, P., starch. XI. Residual dextrin from maize starch (erythrogranulose). XIII. Potato starch, II, 187, 212. See also Klemm, O.

Meyer, L. F., and Robinson, P., vitamin-Cbalance in healthy and sick children, III, 375.

Meyer, L. M., and Flanagan, E. D., acute monocytic leukamia, III, 553.

Meyer, M., chromic oxide as a catalyst in potassium chlorate decomposition, I, 121.

Meyer, M:A. See Biskind, G.R.

Meyer, O. O., and Thewlis, E. W., treatment of polycythæmia vera with liver and choline hydrochloride, III,

See also Allin, R. N.

Meyer, R., dislocation of phallus, penis, and clitoris following malformation in human fœtus, III, 485.

Meyer, R. K., and McShan, W. H., effect of increasing number of daily injections of gonadotropic preparations of ovaries of immature rats, III, 759.

See also Biddulph, C., Kupperman, H. S., and McShan, W. H.

Meyer-Heck, P., polarographic carcinoma reactions. VII., Ill, 20.

Meyerding, H. W. See Broders, A. C. Meyers, R. See Browder, J. Meyerstein, W., effect of light on vertebrate red blood cells, III, 724.

Meyrowitz, R. See Hart, D. Meystre, C. See Miescher, K.

Mezera, R. A. See Brown, G. O. Miasnikov, V. S., titaniferous vesuvianite from Perovskite and Akhmat mines, South Urals, I, 182.

Michaelis, K. A. O. See Linstead, R. P.

Michaelis, L., Granick, S., and Schubert, M. P., another type of free radical in group of thiazines and other related heterocyclic rings, II, 153.

Michaelis, M., and Quastel, J. H., site of action of narcotics in respiratory processes, III, 601.

Michaileva, V. V. See Borshkovski. S. E.

Michailov, N. See Rogovin, Z.

Michailov, N. V., Kargin, V. A., and
Buchman, V. M., X-ray study of the orientation of artificial fibres. II.. I, 403.

See also Kargin, V. A. Michailovskaja, V. I. See Plotnikov, V. A.

Michalev, P. F., periodic structures. I. Formed by evaporating solutions of nitrates, I, 14.

See also Schemjakin, F. M., and Volfson, S. I.

Michalover, S. See Wishnofsky, M. Michantiev, B. I. See Salkind, J. S.

Micheeva, V. I., solubility of beryllium in aluminium, I, 252.

Michel, E. See Simonnet, H.

Michel, M. L., use of sulphanilamide in peritonitis, III, 907.

Michell, W. D., paragenesis of pegmatite

minerals of Striegau, Silesia, I, 491.

Michelsen, J., and Verlot, M., benzedrine as controlling agent of avertin anæsthesia, III, 219.

Michelson, I. D. See Anderson, W. A. D. Michi, K. See Ugami, S. Michot, P., effect of volume constancy of

reacting solid components on magmas, I, 63.

Miekelson, M., intermediary dissimilation of carbohydrate by coli-aërogenes bacteria, III, 709.

and Werkman, C. H., influence of  $p_H$ on dissimilation of glucose by Aerobacter indologenes, III, 51.

Middelkaupf, W. See Schwartzer, K. Middleton, T. R. See Bacharach, A. L. Middleton-Shaw, J. C., Sterkfontein primate, III, 488.

Mider, G. B., and Morton, J. J., local and constitutional effects of methylcholanthrene in production of skin tumours in mouse, III, 277.

See also Morton, J. J.

Miescher, G., oral chemotherapy of gonorrhea, III, 34. Shock therapy of gonorrhœa with sulphathiazole, III, 34.

and Schnetz, A., oral chemotherapy of gonorrhea, III, 1046.

Miescher, K., and Hoffmann, K. [with Panizzon, L.], preparation of basic esters of substituted acetic acids, II,

Hunziker, F., and Wettstein, A. [with Meystre, C.], steroids. XXVII. Homologues of testicular hormone. III. 20-Norpregnenolone, II, 44.

Migdal, A. B., ionisation of atoms and formation of pairs in nuclear reactions,

Mihaéloff, S., soluble enzymes secreted by Aspergillus fumigatus, III, 138. Propagation of pathogenic organisms by paper money and coins, III, 1065.

Miholić, S., water of Vretenice spring on island of Krk, I, 225. Analysis of water of thermal springs of Vrnjačka Banja, I, 308.

Mikander, L. Sec Nyman, G. A.

Mikawa, M., effect of erythrocytes on sensitivity of tissue culture to hard X-rays, III, 1059. Effect of heat and ultra-short waves on radiosensitivity. V. Radiosensitivity of fowl embryo. VI. Tissue respiration and glycolysis of rabbit spleen and sarcoma. VII. Radiosensitivity of tissue cultures. VIII. Radiosensitivity of transplanted tumours, III, 1059.

Mikulinski, A. S., velocity of high-temperature reactions. I. Kinetics of reduction of magnesium oxide by various reagents, I, 420.

and Maron, F. S., velocity of high-temperature reactions. II. Reduction of phosphorites, I, 420.

Milas, N. A., Heggie, R., and Raynolds, J. A., spectroscopic determination of vitamin-D, III, 599.

See also Thompson, A. F., jun. Milch, E. C., changes in retinal arteries before convulsions induced by electric shock, III, 748.

Miles, A. A. See Butler, G. C. Miles, F. T. See Gerber, A. B.

Miles, J. A. R. See Beall, D.

Miles, P. W., cleidocranial dysostosis, III, 546.

Miles, S. S., innervation of panniculus carnosus in Dasypus novemcinctus, III, 237.

Miley, H. A. See Cruzan, C. G.

Milhorat, A. T., and Bartels, W. E., effect of quinine on urinary metabolites of fasting dogs, III, 908.

Bartels, W. E., and Toscani, V., effect of hepatic injury on vitamin-C excretion

in fasting dogs, III, 586. Hardy, J. D., Bartels, W. E., and Toscani, V., effect of shivering, iodoacetate, and adrenaline on vitamin-C and creatine excretion in fasting dogs, III, 586.

and Toscani, V., effect of quinine on metabolism in two patients with muscular wasting and creatinuria, III, 739.

See also Hardy, J. D.

Militzer, W. E., qualitative chemical identification of natural sugars, II, 161. Smith, Earle, and Evans, E., nuclear iodination of aromatic amines, II, 129.

Miljutin, G., and Nachimovitsch, N., heat capacity of halides of iron group at low temperatures. I., I, 329.

and Parfenova, E. A., heat capacity of halides of iron group at low temperatures. II., I, 329.

Parfenova, E. A., and Eselson, B. N., heat capacity of halides of iron group at low temperatures. III., I, 329.
Millar, J. W., and Dean, S. J., detection of

quinicine and cinchonicine, II, 208.

Millard, A. See Büttner, W.

Miller, A., position of adult testes in Drosophila melanogaster, III, 320.

Miller, A. A., purpura in course of measles,

III, 645. Miller, A. R., and Roberts, J. K., theory of adsorption of gases on solids when

potential energy varies continuously over the surface, I, 108.

Miller, B. F., Muntz, J. A., and Bradel, S., effect of quaternary ammonium synthetic detergent on metabolism of dental plaque material, III, 694.

Miller, C. C., qualitative semimicro-analysis with reference to Noyes and Bray's system: thallium group, I, 175.

See also Freeman, N. E.

Miller, C. O. See Foreman, E. L., and Friedman, S. J.

Miller, C. S. See Kolthoff, I. M.

Miller, D. C. See Jauncey, G. E. M.

Miller, D. K. See Richards, O. W. Miller, D. P. See Haggard, H. W. Miller, E. See Lauer, W. M.

Miller, E. B. See Singer, K.
Miller, E. C. See Gauch, H. G., and
Johnston, C. O.

Miller, E. G., jun. See Ross, V. Miller, E. J. See Benne, E. J., and Cowling, H.

Miller, Eric J. See Harvey, D. G.

Miller, E. L. See Thacker, C. M. Miller, E. S. See Barnes, R. H., Hamm, P., and Norris, F. A.

Miller, E. W. See Pybus, F. C.

Miller, F. R., and Hause, W. A., specific substances in urine of leukæmia patients, III, 553.

Miller, G. L., and Stanley, W. M., acetyl and phenylureido-derivatives of tobacco mosaic virus, III, 809.

Miller, G. M., Behrens, O. K., and Du Vigneaud, V., synthesis of the aspartic acid analogue of glutathione (aspar-

thione), II, 317.

Miller, G. W., bowel obstruction in newborn, III, 105.

Miller, Harvey. See Johnson, C. R.

Miller, Hyman, Hawes, R. C., and Piness, G., histaminase allergy: effects on skin reactivity to histamine and to allergens, III, 1079.

and Piness, G., histaminase for allergy.

Miller, H. C., and Darrow, D. C., relation to muscle-electrolyte to alterations in serum-potassium and to toxic effects of injected potassium chloride, III, 850.

See also Liebow, A. A.

Miller, H. G. See Herbert, F. K.
Miller, H. R., nerve pathways and clinical features of shoulder pain in relation to angina pectoris, III, 651.

See also Spiegel, E. A. Miller, James, and McManus, J. F. A., part played by basal and prickle layers of epidermis in regeneration and neoplasia, III, 206.

Miller, Jerome, cheilitis from oil of cinnamon, III, 466.

Miller, J. J., jun., Saitox, T. M., and Silverberg, R. J., parapertussis, III,

Miller, J. K., effect of p-aminobenzoic acid on bacteriostatic action produced by sodium p-nitrobenzoate on a strain of Streptococcus viridans, III, 293. Production in cultures containing sodium p-nitrobenzoate of a substance that affects action of sulphathiazole, III,

Miller, J. R., and Van Dellen, T. R., electrocardiographic changes following intravenous administration of magnesium sulphate, III, 732.

Miller, J. W., and Sayers, R. R., response of peritoneal tissue to industrial dusts,

Miller, L. C., electrostatic deflexion studies of a-particles; a-particles from 6Li (p, a) <sup>3</sup>He, I, 67.

Miller, L. M., Ross, J. F., and Whipple, G. H., methionine and cystine, specific protein factors preventing chloroform liver injury in protein-depleted dogs, III,

Miller,  $M_{\cdot \cdot}$ , Price,  $J_{\cdot \cdot}$ ,  $W_{\cdot \cdot}$ , and Longlev,  $L_{\cdot}$ ,  $P_{\cdot \cdot}$ effect of varying intake of protein and salts on composition and specific gravity of urine, III, 515.

Miller, N. F., measuring effective areas of film-forming molecules, I, 166. Tension mechanisms responsible for lens formation and method for measuring angles of liquid lenses, I, 374.

Miller, O. H., and Fischer, L., synthesis and pharmacology of dialkylmalonylguanidines, II, 204; 111, 695.

Miller, P. A. See Mueller, J. H. Miller, P. G. See Wise, G. H.

Miller, R. A., gastric acidity during first month of life, III, 582. Laryngeal sacs of infant and adult gorilla, Ill,

See also Bates, R. W.

Miller, R. B. See Nathanson, I. T.
Miller, R. C., and Keith, T. B., optimum level of protein intake for growth

and fattening of pigs, III, 890.

Keith, T. B., McCarty, M. A., and Thorp, W. T. S., influence of manganese on lameness in pigs, III, 593.

Miller, R. E., and Morehead, R. P., constant-temperature paraffin oven, 111, 315.

and Rose, S. B., correlation of agar cup-plate data with antiseptic dilution data, III, 909.

Miller, R. F. See Coffen, T. H. Miller, R. N., diencephalic cell masses of Corydora paliatus, III, 430.

Miller, S., and Wray, S., sulphapyridine and convalescent serum in poliomyelitis, III, 1046.

Miller, T. G. See Karr, W. G. Miller, T. R., and Wagner, E. C., analogues of Troeger's base and related compounds, II, 176.

Miller, W. E., See Jones, G. W., and

West, W.
Miller, W. T., complex sodium bismuth
salts of triethanolamine and triisopropanolamine, II, 36.

and Williams, K. T., minimum lethal dose of selenium, as sodium selenite, for horses, mules, cattle, and swine, III, 42. Effect of feeding repeated small doses of selenium as sodium selenite to equines, III, 697.

Sec also Heishman, J. O.

Millett, M. A. See Stamm, A. J. Milligan, R. F., and Hope, F.J., preparation of 2-chlororesorcinol, II, 131.

Milligan, W. O., and Focke, A. B., crystal structure of aluminium-black, I, 104. and Holmes, J., X-ray diffraction studies in system CuO-Fe<sub>2</sub>O<sub>3</sub>, I, 168.

See also Weiser, H. B. Millikan, C. H. See Reading, R. A. Millman, S., and Kuseh, P., precision measurement of nuclear magnetic magnetic moments by molecular beam magnetic resonance method; moments of 1H, 7Li, <sup>19</sup>F, and <sup>23</sup>Na, I, 394.

See also Shrader, E. F.

Millman, S. R. See Hockett, R. C.

Mills, C. A., oncoming reversal of human growth tide, III, 240. Thiamin overdosage and toxicity, III, 1035.

and Chenoweth, L. B., is human growth tide turning? 111, 158. See also Fuller, R. H.

Mills, G. A., oxygen exchange between water and inorganic oxy-anions, I,

Mills, J. H. See Kepler, E. J.

Mills, M. A. See Mackie, T. T.

Mills, R., Breiter, H., Kempster, E., McKey, B., Pickens, M., and Outhouse, J., influence of lactose in calcium retention in children, III, 774.

See also Breiter, H., and Kempster, E. Mills, R. C., Shaw, J. H., Elvehjem, C. A., and Phillips, P. H., curative effect of pantothenic acid on adrenal necrosis, III, 573.

See also Hegsted, D. M.Mills, W. B. See Gilson, A. S.

Milne, A., ecological aspects of intertidal area of Estuary of Aberdeenshire Dee, I, 134.

Milne, H. B. See Suter, C. M. Milone, H. S., and Sullivan, M. X., cystine and tryptophan content of normal and pathological sera, III, 493.

Milosavlević, D., and Jovanović, M., determination of mol. wt. at low pressures by V. Meyer's method, I, 60.

Milovskaja, V. F., resistance of starch from different sorts of wheat to hydrolysing action of amylase, III, 943.

Mims, V. See Day, P. L.

Minckler, H. L. See Iddles, H. A.

Minckler, J., McCurdy, T., and Iwersen, J. C., case of hydranencephalus with cerebellar hemidysgenesis [? human decerebrate rigidity], III, 855.

Minder, W., \$-radiation of radium-A and formation of element of nuclear charge

85, 1, 141.

Mindlin, R. L., plasma-ascorbic acid during treatment of infantile scurvy, III, 493.

Miner, C. S., jun. See Whitmore, F. C. Ming-Tzu, P., origin of branches of axillary

artery in Chinese, III, 65.

Minina, E. G., Igritzkaja, E. B., and Matz-kevitsch, P. P., effect of humidity and air temperature on development of reproductive organs in spring wheat, III, 479.

Minlon, H., compounds related to natural  $\alpha$  estrogens;  $\gamma$ -cyclopentyl- and  $\gamma$ -2-methyl $cyclopentyl-\delta-p$ -hydroxyphenyl- $\Delta \gamma$ hexene, II, 166.

Minn, M. See Khan, N. U.
Minnich, V., Wright, S. T., Moore, C. V.,
and Spies, T. D., whole blood- and
plasma-ascorbic acid concentrations in pellagra and associated deficiency diseases, III, 596.

Minnick, L. J. See Hartung, W. H. Minot, A. S., and Dodd, K., correction of

distorted fluid equilibrium in presence of vascular injury, III, 422.

and Frank, H. E., urinary excretion of guanidine administered orally normal persons and patients with myasthenia gravis, III, 448.

See also Keller, M. L.

Mintel, A. M. See Alexeevski, E. V. Mintz, N., phagedænie ulcer treated with zinc peroxide, III, 529.

Miretzki, V. See Kurdjumov, G.

Miroschnitschenko, K. S. See Delimarski, J. K.

Mirsky, A. E., effect of heat on crystals of serum-albumin; production of crystals of denatured protein, III, 968. Thiol of denatured protein, III, 968. groups of ovalbumin in denaturing agents, III, 1060. Thiol groups in films of ovalbumin, III, 1061.

Mirsky, I. A., Korenberg, M., Nelson, N., and Nelson, W. E., hepatic glycogen reserves in diabetes, III, 458.

See also Nelson, N.

Mischtschenko, K. P., Vorakso, C. I., and Grudkova, L. I., electric losses in aqueous sulphuric acid, I, 461.

Mishell, D. R., and Motyloff, L., effect of hysterectomy on ovary, III, 440.

Misra, R. D. See Born, M.

Mita, T., relation between electro-encephalogram and reaction time to visual stimuli in man, III, 748. Relationship between human electro-encephalogram and reaction time following light signal, III,

Mitchell, G. H., Borrowdale volcanic series of Coniston, Lancashire, I, 231.

Mitchell, H. H., and Hamilton, T. S. [with Haines, W. T.], utilisation by calves of energy in rations containing different percentages of protein and in glucose supplements, III, 773.

See also Lawrenz, M., and Shields, J, B.

Mitchell, H. K., Snell, E. E., and Williams, R. J., concentration of "folic acid," III, 1066.

and Williams, R. J., amino-acids as yeast nutrients, III, 138.

See also Snell, E. E., and Zschiesche, E. Mitchell, H. S. See Henderson, M. D., and Moore, E. L.

Mitchell, J., jun., Smith, D. M., and Bryant, W. M. D., analytical procedures employing Karl Fischer reagent. VI. Determination of carbonyl compounds, II, 180.

See also Bryant, W. M. D.

Mitchell, J. J., Brown, Harrison, and
Fowler, R. D., isotopic constitution of cobalt, I, 439.

See also Brown, Harrison.

Mitchell, J. West, treatment of diabetes in aged, III, 756.

See also Kastlin, G. J.

Mitchell, John W., and Brunstetter, B. C. colorimetric determination of indolyl-

3-acetic acid, III, 940. and Stewart, W. S., comparison of growth responses induced in plants by naphthylacetamide and naphthylacctic acid, III, 540.

and Stuart, N. W., growth and metabolism of bean cuttings subsequent to rooting with indolylacetic acid, III,

See also Kraus, E.J.

Mitchell, N. B., and Levine, Max, nitrogen availability as an aid in differentiation of bacteria in the coli-aërogenes group, III, 51.

Mitchell, R. L., spectroscopic analysis of solutions by a modified Ramage flame emission method, I, 219.

Mitchell, S., Schwarzwald, K., and Simpson, G. K., photolysis of chloronitroso-com-

pounds, II, 349. Mitra, G. N. See Mookerjee, H. K. Mitra, S. K., isolation of anti-anæmic

factor in raw liver, III, 107.

Mitui, T., sugar-cane wax. VI. 6-Nitroderivatives of sterols. VII. Oxidation of
sugar-cane sitosterol. II., II, 45.

Miura, M., action of vagus [and drugs] on intermediary carbohydrate metabolism [blood-sugar and -lactic acid]. I. and II., III, 558. Hormonal influences on carbohydrate metabolism of liver, III, 767.

Miwa, M., Yamashita, H., and Mori, Kasuo, use of sea-urchin sperm in Roentgen dosimetry, III, 1030. See also Yamashita, H.

Miwa, T., relation of inhibitory phenomenon of tubercle bacillus and Mantoux reaction and rate of sedimentation of blood corpuscles, III, 933.

Mixner, J. P., and Turner, C. W., influence of local applications of turpentine on mammary gland growth and involution, III, 674.

Miyake, H., and Oda, M., clinical importance of ileal diverticulum and pathology of its intramural plexus, III, 512.

Miyamoto, G. Sec Sagane, R. Miyashita, Y., 3-hydroxy-o-phthalic acid, II, 292.

Miyayoshi, II. Sec Kawakami, K.

Miyazaki, Y. See Nishina, Y.
Mizogochi, I., active substance in cell

nuclei, III, 39. Mizoguti, Y., influence of thyroid, ovary,

and testis on dental growth, III, 1. Mizushima, S. I., Morino, Y., and Fujisiro, R., investigation of cyclohexane-methylcyclopentane equilibrium by the Raman

effect, I, 467. Mizushina, M. See Kobayashi, Kiuhei. Mizutsch, K. G., carbazole and its derivatives. I. Carbazolemonosulphonic

acid, II, 75.

and Savtschenko, A. J., carbazole and its derivatives. II. Bromination of carbazole and carbazole-3-sulphonic acid, II, 75.

Moberg, G., widespread subcutaneous

calcifications in connective tissue of leg,

III, 719.

Mochizuki, N., galactose test of hepatic function, III, 583. Tests of hepatic

function, III, 583.

Modak, K. V. See Prasad, M.

Modell, W., and Gold, H., use of digitalis to prevent exaggerated acceleration of heart during physical exercise in patients with auricular fibrillation, İII, 911.

Gold, H., and Rothendler, H. H., digitalis and cardiac acceleration in auricular fibrillation, III, 1049.

and Salzman, C., pharmacology of silica, III, 618.

See also Loewe, S.

Modern, F., Repetto, O., and Ruff, G., electrophoresis of euglobulins and pseudoglobulins in antidiphtheric serum, III, 729.

and Ruff, G., electrodialysis of sera and proteolysed protein fractions, III, 224. Proteolysis of normal and antidiphtheria scrum fractions by pepsin, III, 229. Peptic proteolysis of proteins of normal and antidiphtheritic sera. II., III, 229.

Modlin, L. R., jun.. and Burger, A., petroleum bases. II. Amino- and hydroxy-derivatives; chemistry of diazo-

oxides, II, 204.

Moehlig, R. C., castration in the male, III, 101.

See also Watson, E. H.

Møller, C., theory of mesons, I, 70. Nomenclature of nuclear particles, I, 187.

Möller, H. See Siedel, W.

Møller, K. O., and Simesen, M., organ analysis in case of fatal nicotine poisoning, III, 132. See also Halstrøm, F.

Moeller, T., modified atomic volume plots, I, 96. Rhythmic precipitation, I, 114. Indium. II. Hydrolysis of indium trichloride solutions, I, 343.

Moelwyn-Hughes, E. A., kinetics of reaction between methyl bromide and thio-

sulphate ion in water, I, 340. and Johnson, P., kinetics of decomposition of diazoacetic ester catalysed by acids in aqueous solution, I. 341. Kinetics of mutarotation of glucose catalysed by hydrogen ion in aqueous solution, I, 341.

Sec also Kendrew, J. C.

Moerder, C. See Porai-Koschitz, A. E. Moerel, M. See Ketelaar, J. A. A.

Moersch, F. P., treatment of mental disease, III, 860.

Craig, W. McK., and Kernohan, J. W., tumours of brain in aged persons, III, 664.

See also Brown, J. R., and Woltman, H.W.

Moersch, H. J. See King, W. L. M. Moeschlin, S., "Innenkörper" anæmia in course of sulphapyridine treatment, III, 36. Traumatic thrombosis and pulmonary embolism, III, 337.

and Hurschler, H., comparison of toxic action of sulphapyridine and sulphathiazole on red cell count, III, 215.

Moffet, C. E. See Clarke, B. G.

Moffett, R. B. See Shriner, R. L.

Mogila, M. T., morphology of innervation of Grandry bodies, III, 176. Restitution of adult nerve tissue, III, 176.

Mogilnitzki, N. V., morphological changes

of nervous system in senility, III, 9.

Moglia, J. L. See Cicardo, V. II., and
Foglia, V. G.

Mohler, F. L., recombination and electron

attachment in F layers of the ionosphere, 1, 67. Resistivity of interstellar space,

Mohler, H., chemical war materials. XXIV. Determination of "yellow cross" [ $\beta\beta'$ -dichlorodicthyl sulphide] by spectrophotometric method, II, 311.

and Hämmerle, W., chemical war materials. XIX. Chemical and spectroscopic properties of  $\beta\beta'\beta''$ -trichlorotriethylamine (skin poison) and its hydrochloride, I, 27; II, 35.

and Hartnagel, J., chemical war materials. XXIII. Hydrolysis of ββ'-dichloro-

diethyl sulphide, I, 420.
and Sorge, J., chemical war materials.
XVIII. Ultra-violet absorption and dipole moments of compounds of similar structure to  $\beta\beta'$ -dichlorodiethyl sulphide, I, 27.

Mohr, C. B. O. See Massey, H. S. W.

Mohr, G.J., sexual education of adolescent, III, 1009.

Mohr, W., and Lippelt, H., Filaria complement fixation reaction, III, 397.

Mohs, F. E., transformation of rat mammary adenofibroma into fibroma by androgens, III, 1025.

and Guyer, M. F., pre-excisional fixation of tissues in treatment of cancer in rats, III, 280.

Moisset de Espanés, E., action of "maté" on heart rate and blood pressure, III, 788.

Mokruschin, S. G., and Ginsburg, R. B., laminar systems; formation of thin films of sulphides of zinc and arsenic on solutions of zinc and arsenic salts, I, 39.

Kosheurova, V. A., and Blum, I. A., laminar systems. XIV. Formation of thin films of copper sulphide on solutions, I, 110.

Mokruschin, S. G., and Scheina, Z. G., laminar systems; electrophoresis of thin films of metal sulphides and metal hydrates on water and solutions, I. 45.

Moldavski, B., and Nizovkina, T., isomerisation of hydrocarbons. V. Pentanes, I. 336. Hydrogenation of oxygen-contain- $\beta$ y-dimethylbutane from pinacolin, II, 57. ing compounds. III. Preparation of

Moldtmann, H. G., ascorbic acid content of plants in relation to internal and external factors, III, 816.

Molière, G., calculations of generalised lattice potentials, I, 153.

Molitor, H., Mushett, C. W., and Kuna, S., toxicology and pharmacology of the proteolytic enzyme, ficin, III, 297.

Molle, W. See Sterne, E. H., jun. Mollenkopf, K. See Diemair, W.

Mollison, P. L., and Young, I. M., survival of transfused erythrocytes of stored blood, III, 415.

See also Brown, II. A., and McQuaide, D. H. G.

Molloy, E. See Sanders, M.

Molnar, S., and Horányi, M., vitamin-B, tolerance tests, III, 595.

Moloney, P. J., and Orr, M. D., effect of constituents of ox bile on Ramon flocculating value of diphtheria toxin, III, 229.

Mommsen, H., treatment with almond milk in acute disturbances of nutrition

in sucklings, III, 454.

Monaghan, B. See White, Harvey L.

Monaghan, J. F. See Strumia, M. M.

Mondal, K. L. See Neogi, P.
Monfort, J. A., and Mehrling, J. H., Waterhouse-Friderichsen syndrome, III, 867.

Monges, H. See Malméjae, J.

Moniz de Bettencourt, J., and Albergaria Ambar, F., effect of aneurin on turtle heart, III, 170.

Monke, J. V., counting leucocytes in blood containing gum acacia, III, 834.

Anaërobic drawing and sampling of blood for gas analysis, III, 846. and Yuile, C. L., renal clearance of

hæmoglobin in dog, III, 15.

Monnier, M., changes in nervous system and striated muscles of adult rats deficient in vitamin-E, III, 686.

Monoury, G. See Ramon, G. Monroe, C. F., and Perkins, A. E.,  $p_H$ values of ingesta of bovine rumen, III,

Monroe, (Miss) E. See Kirkwood, J. G. Montague, J. R. See Todd, W. R. Monteux, Y., Wilson chamber, I, 223.

Montgomery, A. See Larsen, E. S., 3rd. Montgomery, C. G., and Montgomery, D. D., Geiger-Müller counters, I, 349. Time lags in Geiger-Müller counter dis-

charges, I, 358. Montgomery, D. D. See Montgomery,

Montgomery, G.L. See Dunn, J. S.

Montgomery, H., and Kernohan, J., pigmented nævi and possible neuroepithelial origin of nævus cell, III, 454

[with Turner, S. C., and Sammis, E. C.], use of acetyl- $\beta$ -methylcholine chloride iontophoresis in non-arterial peripheral vascular disease, III, 338.

See also Hildebrand, A. G., and Jeffers, W, A.

Montgomery, M. L., Entenman, C., Chaikoff, I. L., and Nelson, C., rôle of external secretion of the pancreas in lipin metabolism; prevention of fatty livers in deparcreatised and ductligated dogs by daily feeding of fresh pancreatic juice, III, 379.

Sheline, G. E., and Chaikoff, I. L., elimination of sodium in pancreatic juice as measured by radioactive sodium, III, 513.

See also Entenman, C.

Montgomery, M. M., and Kirschbaum, J. D., jejunal (anastomotic) ulcer, III, 679.

Montroll, E., molecular size distributions and depolymerisation reactions in polydisperse systems, I, 334.

See also Mayer, J. E.

Monypenny, D. See Ross, J. R.

Moody, F. B. See Wolfrom, M. L.

Moody, L. S. See Hill, G. A.

Mookerjee, (Miss) A., alkaloids of Rauwolfia canescens (Linn.). I., II, 341.

Mookerjee, H. K., Mitra, G. N., and Mazumdar, S. R., development of vertebral column in Lebistes reticulatus, III, 66.

Mookherji, A., and Tin, M. T., magnetic anisotropy of cupric selenate pentahydrate, I, 155.

Moon, P., proposed standard solar-radiation curves for engineering use, I, 185. Optical reflexion factors of acoustical materials, I, 368.

Moon, V. H., early recognition of shock and its differentiation from hæmorrhage, III, 82. Capillary factors in processes of disease, III, 174. Hæmoconcentration as related to shock, III, 964.

Mooney, (Miss) R. C. L., crystal structure tetraphenylarsonium οf  $(C_6H_5)_4AsI$ ,  $\hat{I}$ , 197.

Mooney, R. L., elastic scattering in helium at 15°, I, 146.

Moor, G., alkaline province in northern

part of central Siberia, I, 231. Moor, H. D., and Wallace, L. B., investigation of protective antibodies produced by oral administration of typhoid

vaccine, III, 1074. Moore, B. See Strong, F. M. Moore, B. L. See Holloway, M. G. Moore, Caroline. See Fankhauser, G.

Moore, Clyde. See Young, R. H.

Moore, C. H., jun., origin of nelsonite dykes of Amherst Co., Virginia, I, 61.

Moore, C. R., physiology of testis, III, 760. Moore, C. V. See Minnich, V. Moore, D. H. See Abramson, H. A.,

Chargaff, E., Orr, W. F., jun., and Treffers, H. P.

Moore, E. L., Henderson, M. D., Mitchell, H. S., and Ritchie, W. S., effect of hydrolytic products of casein and deaminised casein on cataractogenio action of galactose, III, 503.

Moore, E. S., genetic relations of gold deposits and igneous rocks in the Canadian shield, I, 62.

Moore, F. J., Raulston, B. O., Thomas, R. E., Maguire, J. F., and Ridge, G. K., pneumococcal pneumonia, III,

Thomas, R. E., Kistler, M., Ireland, R. M., and Hallstone, V. E., pneumococcal pneumonia, III, 537.

Thomas, R. E., Raulston, B. O., and Hoyt, A., serum in pneumococcal pneumonia, III. 611.

Moore, F. W. See Gilman, H.

Moore, G. E., reduction of magnesium oxide by tungsten in vacuum, I,

and Webb, H. W., use of step weakness in photographic photometry, I, 431. See also Garth, R. C., and Parks, G. S.

Moore, H. See O'Sullivan, J. F.

Moore, J. E., and Eagle, H., quantitative serologic test for syphilis, III, 1071. See also Flemming, W. L.

Moore, J. W. See Kinsman, J. M.

Moore, L. A., determination of carotone in plant material, III, 234.

and Ely, R., extraction of carotene from plant material, III, 942. and Sykes, J. F., cerebrospinal fluid

pressure and vitamiu-A deficiency, III, 857.

Moore, L. T. See Muether, R. O. Moore, L. V. See Coburn, A. F. See Muether, R. O.

Moore, M. Seo Jetter, W. J.

Moore, M. B., antihemorrhagic activity of

sulphonated derivatives of 2-methylnaphthalene, II, 369. and  $\hat{\mathbf{V}}$ olwiler,  $\hat{E}$ .  $\hat{H}$ ., esters of brominated

aminobenzoic acids, II, 12.

Moore, M. J., high-pressure valve, I, 132. Moore, M. L., and Crossley, F. S., acylthiocarbamides, II, 89. See also Hampil, B.

Moore, M. T. See Winkelman, N. W.Moore, M.W., dermatitis from use of electric razor, III, 1082.

Moore, O. M., peptic ulcer in children, III, 581.

Moore, R. A. See Lord, J. W. Moore, R. M., and Singleton, A. O., distribution of tetanus throughout the

United States, III, 476.

Moore, S., Dimler, R. J., and Link, K. P., d- and l-isomerides in samples of lactic acid, II, 236.

and Link, K. P., preparation of 2-aldopolyhydroxyalkylbenziminazoles, II,

See also Stein, W. H.

Moore, T. See Booth, V. H., Davies, A. W., and Lawrie, N. R.

Moore, W. G., feeding habits of fishes, III, 370.

Moore, W. J., jun., and Pauling, L., crystal structure of tetragonal monoxides of lead, tin, palladium, and platinum, I,

Moore, W. T. See Hellman, L. M. Moosnick, F. See Murray, M.

Morales-Otero, P., and Pomales-Lebrón, A., effects of sulphanilamide and sulphamethylthiazole on experimental Brucella melitensis infection in mice, See also Pomales-Lebrón, A.

Morán, F., adiabatic cooling [of air] consequent on work done when it rises, I, 107.

Moran, T. J., and Fetterman, G. H., chromophobe pituitary adenoma with Simmonds' disease, III, 757.

See also Fetterman, G. H. Morawiecki, J., weak agglutinogens and

blood group determination, III, 727.

More, R. H. See Duff, G. L.Morehead, O. J., vitamin- $B_1$  for acute heart failure, III, 843. Vitamin- $B_1$  in chronio bronchitis, III, 847. Morehead, R. P. See Miller, R. E.

Morehouse, M. G., and Deuel, H. J., jun., metabolism of aβ- and βy-deuterohexoic acids, III, 603.

Morel, F., and De Montmollin, R., alcoholicpellagrous psychosis, III, 994.

and Duman, R., anatomical and clinical studies of alcoholic Korsakoff syndrome, III, 994.

Morell, S. A., determination of reducing sugars; extension of Forsee's photocolorimetric ferricyanide method, II, 236.

Morenzi, A. D., Lida, E., and De Cairo, Z. G., activity of common anticoagulants,

Morey, G. W. See Ingerson, E.
Morgal, P. W. See Petering, H. G.
Morgan, A. F., nutrition and defence, III, 890.

and Simms, H. M., anti-grey hair vitamin deficiency in the silver fox, III, 286.

Morgan, C. See Gould, J. Morgan, C. L. See Ringrose, R. C.

Morgan, E. A., thymus gland in pediatric practice, III, 263.

Morgan, II. J. See Blalock, A.
Morgan, J. F. See Kline, O. L.
Morgan, J. II., and Auer, M. L., optical,

spectrographic, and radioactivity studies of zircon, I, 226.

Morgan, K. Z. See Nielsen, W. M. Morgan, M. W. See Olmsted, J. M. D.

Morgan, O. G., convergence weakness, III, 10.

Morgan, P. W. See Wolfrom, M. L. Morgan, R. H., and Weinhouse, S., alternating-current photo-electric colorimeter, III, 235. Portable photo-electric colorimeter, III, 235.

Morgan, T. H., cross- and self-fertilisation in Ciona, III, 954.
Morgan, T. N., and Anderson, A. Greig, chronic acetanilide poisoning, III, 132.

Morgan, W. R. See Greene,  $\bar{K}$ . T.

Morgana, M. See Campbell, W. P. Morgareidge, K., and Finn, S. B., effect of fluorine on activity of vitamin-D in rachitic rats, III, 28.

See also Gray, E. LeB.
Morgulis, N. D., Bernadiner, M. P., and Djatlovitzkaja, B. I., neutralisation and ionisation on a thoriated tungsten surface, I, 139.

Morgulis, S. See Eppstein, S. H.

Mori, Kasuo, effect of liver feeding on liver cancer production by o-aminoazo-toluene, III, 1024. Effect of animal tissue feeding on experimental production of liver cancer, especially the inhibiting effect of kidney feeding, III, 1024. Effect of cystine feeding on production of liver cancer, III, 1025.

See also Miwa, M., Nakahara, W., and Yamashita, H.

Môri, Koziro. See Sata, N.

Moricard, R., and Simard, R., comparative activities of estradiol benzoate, vitamins-A and -C, and stilbæstrol in experimental fibromatosis, III, 874.

Morice, (Miss) I. M., and Simpson, J. C. E., triterpene group. VIII. Minor triterpenoid constituents of Manila elemi resin, II, 172.

Morigami, S., and Kasiwabara, N., inhibition of liver cancer by millet feeding, III, 1024.

Morikawa, K., Kimoto, T., and Abe, R., direct determination of oxygen in organic compounds by hydrogenation. I. Optimum analytical conditions. II. Cracking mechanism on platinum-silica gel catalyst. III. Reduction mechanism on nickel-thoria catalyst, II, 116, 157, 386.

Moriki, H. See Yamasaki, H. Morimoto, S. See Kawakami, H.

Morimoto, Y., appearance of neon spark lines under external magnetic field, I, 437. Morin, G. See Hermann, H., and Sedallian,

Morino, Y. Sce Mizushima, S. I.

Morison, B. R. See Dempsey, E. W., and Morison, R. S.

Morison, J. E., capsulation of hæmolytic streptococci in relation to colony formation, III, 143. Physiology of capsulated streptococci, III, 931.

Morison, R. S., Dempsey, E. W., and Morison, B. R., cortical responses from electrical stimulation of brain stem, III, 740.

See also Dempsey, E. W., and Dole, V. P., jun.

Moritz, D. von, and Henyi, A., "leptospirosis typhosa" in childhood, III, 392. Mornet-Cros, M., sero-diagnosis of syphilis

in citrated blood, III, 476.

Morningstar, O., Evans, R. D., and Haskins, C. P., electrical bombardment of biological materials. II. Electron tube for production of homogeneous beams of cathode rays from 10 to-100 kv., I, 391.

Morozova, E. See Botvinnik, M. M. Morrell, C. A., and Allmark, M. G., toxicity and trypanocidal activity of commercial neoarsphenamine, III, 696. Allmark, M. G., and Bachinski, W. M., biological assay of oxytocic activity of pituitary extract (posterior lobe), III, 219.

See also Allmark, M. G. Morrell, C. E. See Robey, R. F.

Morrell, E. See Williams, D. E.

Morrill, C. C. See Levine, N. D.

Morris, C. J. O., determination of sulph-

anilamide and its derivatives, III, 1087. Morris, H., and Selwood, P. W., magnetic

measurements on tin trimethyl and lead

tricyclohexyl, I, 456. Morris, H. H., Hwang, M. S., and Kuo, P. T., pellagra among war refugees in Shanghai, III, 25.

Morris, H. J. See Nelson, A. A. Morris, L. See Geissman, T. A.

Morris, L. E. See Bowman, D. E.

Morris, M. L., and Murray, T. J., treatment with sulphanilamide of meningoencephalitis associated with canine distemper, III, 35.

Morris, N., newer insulins, III, 438. and Rogen, A. S., calcium and diuresis

in heart failure, III, 294.

Morris, R. See Necheles, H. Morris, W. R., saddle thrombus at aortic

bifurcation, III, 496. Morrish, R. W. D. See Maxted, E. B. Morrison, (Miss) A. L. See Reimer,

(Miss) M. Morrison, D. B., and Williams, E. F., jun.,

solubility and titration of hæmin and ferrihæmic acid, I, 165. Morrison, I. R., determination of packed

white cell volume of blood, IIÎ, 491. Blood sedimentation, III, 959.

Morrison, J. L., and Emerson, G. A., organotropy of tribromoethanol, tribromoacetaldchyde, and tribromoacetic acid, III, 914.

Morrison, L. M., test of liver function determined from concentration of bile salts in bile and urine, III, 514.

and Swalm, W. A., physiological test for liver function, III, 583. See also Hyman, A. S.

Morrison, M., and Samwick, A. A., intramedullary transfusion of human bone marrow, III, 322.

Morrison, S., pernicious anæmia: rôle of pepsin, III, 71.

and Feldman, M., effect of pituitary on motility of gastro-intestinal tract, 111, 265. Effects of pituitary and thyroid glands on carbohydrate metabolism, ĪII. 265.

Gardner, R. E., and Reeves, D. L. selective elimination of neutral-red through gastric mucosa, III, 877.

Morrison-Jones, C. R. See Farmer, E. H.

Morrissey, E. J. See Garland, L. H.

Morse, L. M., and Schmidt, C. L. A.,
absorption of 2-methyl-1:4-naphthaquinone and phthiocol by bile fistula rats, III, 646.

Morse, M. See Schlutz, F. W.

Morse, S., cataract complicated in hyperglycæmia by persistent chromotopsia, III, 503.

Morson, T. D., pectin, III, 919.

Mortensen, V., QRS complex in precordial leads in anterior wall infarction; true and false infarction curves, III, 650.

Mortimer, C. H. See Jenkin, B. M.

Morton, A. A., and Mahoney, J. F., copper blocks and optical system for determining b.p. (Emich method) and m.p., I, 431. Analysis of a single drop of liquid by micro-fractionation, I, 433.

Massengale, J. T., and Gibb, T. R. P., jun., condensations by sodium. XIX. Reactions of compounds with dichloro-ethers and mercuric chloride, II, 132.

Olson, A. R., and Blattenberger, J. W., thioanilides of malonic acids, II,

Richardson, G. M., and Hallowell, A. T., condensations by sodium. XX. Preparation and properties of organosodium compounds derived from butyl and propyl chlorides, II, 123.

Morton, A. R. See Dingle, J. H.

Morton, G. A. See Piore, E. R.

Morton, H. E., and Anderson, T. F., reduction of potassium tellurite by C. diphtheriæ, III, 802.

Morton, J. J., and Mider, G. B., effects of carcinogenic agents on mice subject to spontaneous leukoses, III, 1023. See also Mider, G. B.

Morton, M. C. See Cutting, W. C. Morton, M. E., Perlman, I., and Chaikoff, I. L., radioactive iodine as indicator of metabolism of iodine. III. Effect of thyrotropic hormone on turnover of thyroxine and di-iodotyrosine in thyroid gland and plasma, III, 902. See also Perlman, I.

Morton, R. A., and Earlam, W. T., absorption spectra in relation to quinones: 1-4-naphthaquinone, anthraquinone, and their derivatives, I, 238.

See also Henry,  $K.\ M.$ Morton,  $W.\ R.\ M.$ , stereoscopic X-ray

method of reconstruction, III, 155.

Moschcowitz, E., cedema and basal meta-bolism, III, 1039.

Moschkevitsch, L. S., comparative pathology of blood transfusion shock in mammals. II., III, 162. Moschowitz, E., Mage, S., and Kugel, V. H., causes of painless gastro-duodenal

hæmorrhage, III, 1014.

Moschtschinskaja, N. K., preparation of dibenzpyrenequinone. 11. Structure of isomeride of benzoylbenzanthrone, II,

Moseley, V. E. See Nicholson, W. M. Mosenthal, H. O., clinical relation of kidney to blood pressure, III, 654.

and Mark, M. F., protamine zinc insulin in diabetes with tuberculosis, JII. 1006.

Moser, F., differentiation of isolated gills of amphibian embryos, III, 3.

Moser, J. M., nutritional standards for normal growth in infants, III, 592.

Moses, E., atresia of terminal portion of the ileum, with perforation, in premature infant, III, 880.

Moses, H. E. See Feldman, W. H. Mosesman, M. A., and Pitzer, K. S.,

thermodynamic properties of crystalline forms of silica, I, 458.

Mosettig, E., and May, (Miss) E. L., tetrahydroisoquinolino-alcohols derived from tetrahydronaphthalene, II, 21.

Mosher, W. A. See Whitmore, F. C.

Moskowitz, S., and Burke, W. J., determination of halogenated hydrocarbon vapours in air, III, 384.

Mosonyi, L., Mester's rheumatism test, III.

Moss, A. R., conversion of  $\beta$ -phenyl-lactic acid into tyrosine in normal rats, III,

Moss, C. C. See Spedding, F. H.

Moss, E. S., and Schenken, J. R., fulminating meningococcal septicæmia with bilateral adrenal hæmorrhage, III, 754.

and Weilbacher, J. O., jun., diagnosis and treatment of tularæmia, III, 807.

Moss, F. K. See Luckiesh, M. Moss, H., double-acceleration high-voltage

electron gun, I, 91.

Moss, H. K., and Herrmann, L. G., quinine

for "night cramps," 111, 252.
Schiff, L., Stevens, R. J., and Rich,
M. L., blood in hæmatemesis and melæna with reference to hæmorrhage, III, 272.

Moss, K. N. See Muller, T. F.

Mosser, H. See Rouslacroix, A.

Most, H., and Tewkesbury, M. H., | blood changes in ] falciparum malaria of drug addicts, III, 491.

Mostafa, (Miss) A. See Schönberg, A. Mostriukov, P. M. See Porai-Koschitz,

Mosunov, P. Sec Salkind, J. S. Motell, W. G. See Greengard, J.

Mothes, K., Baatz, I., and Sagromsky, H., significance of carotenoids in utilisation of light in photosynthesis, III, 389.

Motida, I., Nakagawa, T., and Umezu, M., chemistry of glanders bacillus. II., III, 229,

Motley, H. L., qualitative test for barbiturates, III, 914.

Motokawa, K., interference between secretion and electro-osmosis in frog skin on stimulation by direct current, III, 793. Relation between secretomotor reaction and action current of frog skin by direct and indirect stimulation, III, 793. Fundamental conditions of galvanic skin reflex in frogs, III, 854. Secretion and electro-osmosis of frog's skin after stimulation with direct current, III, 854. Secreto-motor reaction and action potentials of the frog's skin after direct and indirect stimulation, III, 854.

Motschan, I. See Babkova, M., and Shadanovskaja, K.

Mottram, J. C. See Read, J.

Mottram, J. S., abnormal Paramecia produced by blastogenic agents and their bearing on cancer problem, III, 886.

Mottram, V. H., food and the housewife, 111, 21.

Mottshaw, H. R. See Bowman, R. O. Motwani, R. B. R. C., ease of cyclops eye in full-term human fætus, III, 861.

Motyloff, L. See Mishell, D. R. Moubasher, R. See Schönberg, A.

Moulton, J. E., and Link, G. K. K., auxin production by Ustilago zew on a medium free from tryptophan, III, 403. See also Link, G. K. K.

Moulton, R. W. See Blacet, F. E. Moundres, T. P. See Emerson, W. S. Mountain, G. E., and Allen, E. V., fluctu-

ation of blood pressure in essential hypertension, III, 654.

Mourgue, M., phosphatase activity in skin bones of Raia clavata, III, 951.

Mouriquand, M. G., Enselme, J., and Enselme, M. J., basal metabolism in children with goitre, III, 93.

Mousel, L. H. See Lundy, J. S. Moussatché, H. See De Almeida, M. O., and Vianna Dias, M. Movsehovitsch, F. L. See Gaponenkov,

T. K., and Saltschinkin, A. P.

Mowry, D. T., and Brode, W. R., p-bromophenacyl esters, II, 365.

Moxon, A. L., Du Bois, K. P., and Potter, R. L., toxicity of optically inactive, dand l-selenium cystine, III, 790.

Moyer, A. W. See Du Vigneaud, V.

Moyer, C. See Gesell, R. Moyer, H. V., determination of centre of gravity of beam of a chemical balance, I, 131.

Mozingo, R. See Drake, N. L. Mozolowski, W., determination of glycuronic acid and its conjugated compounds by Tollens' naphthoresoreinol test, III, 152.

Mrgudich, J. N. See Smith, A. K.

Mrozowski, S., nuclear isotope shift in spectrum of ZnH, I, 4. Hyperfine structure and intensities of forbidden lines of PbI, I, 66. Hyperfine structure of ionised mercury lines, I, 138. See also Jenkins, F. A.

Mucklé, C. W., suppression of lactation by stilbæstrol, III, 872.

Mudd, S. See Flosdorf, E. W.

Mudrakova, L. S., lactic acid content of gastric juice, III, 765. Mühlbock, O., metabolism during preg-

nancy, III, 211.
Muelder, K. D., and Kelly, E., effect of quantity of basal food intake on utilisation of vitamin-A, III, 373.

Müller, A., solid n-paraffins; repulsion potential and compressibility, I, 404.

Müller, F., and Scholtan, W., absorption spectroscopy using the hydrogen lamp, I, 484.

Müller, Hans. See Schramm, G.

Mueller, Hans (Cambridge, Mass.), properties of Rochelle salt. IV., I, 157. Electro-optical field mapping, I, 375.

Müller, H. A., excretion of pregnanediol as indication of corpus luteum function,

Mueller, J. H., and Miller, P. A., growth requirements of Clostridium tetani, III, 1072.

See also Cohen, S.; and Snyder, J. C.

Müller, O., physiology and pathology of human capillaries, III, 82.

Müller, Oskar. See Wieland, H.

Müller, O. H., and Person, E. C., jun., syringe type glass electrode for measurement of blood-p<sub>H</sub>, III, 645.

Müller, R., influence of coramine on circulatory carotid sinus reflexes, III, 8.

Müller, R. M., American apparatus, instruments, and instrumentation, I.

Müller, W., pathological studies of brain with regard to senile changes, III, 992. Müller-Jäger, E. See Effkemann, G

Muether, R. O., and Andrews, K. R., technique for storage of blood, III, 643. Changes in and uses of stored blood and plasma, III, 831.

Moore, L. T., Stewart, J. W., and Brown, G. O., spleen and chronic granulocytopenia, III, 965.

See also Andrews, K. R., and Brown, G, O.

Muir, J. R., and Percival, E. G. V., cellobiosazone, galactosazone, and other sugar osazones, II, 35.

Muir, R., evolution of carcinoma of mamma,

III, 452.

Muir, R. D., Shamleffer, V., and Jones, L. R., protective effect of sulphamethylthiazole on experimental Salmonella enteritidis infection in mice, III, 693.

Mukerji, S. K., and Aziz, J. A., Raman spectrum of m-diphenylbenzene, I, 148.

Mulford, D. J. See Griffith, W. H.,
Muliar, P. A. See Rutovski, B. N.
Mulinos, M. G., and Disick, S., pharmacology of derivatives of a-sec, furfurylamine and of di-a-furfuryl tertiary amine,

Mull, J. W., and Bill, A. H., blood findings in late pregnancy, III, 967.

Bill, A. H., and Skowronska, H., effect on newborn of vitamin-K administered to mothers in labour, III, 726.

Mullan, J., Percival, E. G. V., and Burnett, R., seed mucilages. I. Mucilaginous polysaccharide of seed of Plantago lanceolata, II, 35.

Mullen, J. P., and McCarter, J. C., mordant

for preparing formaldehyde-fixed neuraxis tissue for phosphotungstic acid hæmatoxylin staining, III, 722. Mullen, J. W., jun. See Pacsu, E.

Muller, H. J. See Mackenzie, K.

Muller, H. M. Sec Schramm, G.

Muller, R. L., structure of solid glasses as revealed by electrical conductivity, I,

Muller, T. F., and Moss, K. N., physiological aspect of a miner's work, III, 700. Mulligan, R. M., quantitative studies on bone marrow of dog, III, 641.

Mulliken, R. S., species classification and rotational energy-level patterns of non-linear triatomic molecules, I, 319. Rieke, C. A., and Brown, W. G., hyper-

conjugation, I, 100. Mullin, C.J. See Guth, E.

Mullins, L. J., radioactive ion distribution in protoplasmic granules, III, 398. See also Mazia, D.

Mullison, W. R., effect of calcium deficiency on respiration of etiolated seed-lings, III, 938.

Mulsow, F. W., peptic ulcer in aged, III, 877.

Mumford, E. W., vision testing for screening purposes, III, 500, 747.

Munal, H. D. See Slaughter, D.

Munch, J. C., pharmaeology and bioassay of insulin-free pancreatic extracts, III, 582.

Gattone, V. H., and Pratt, H. J., pressor drugs. I. Chemistry and pharmacology of an analogue of adrenaline, III,

Pratt, H.J., and Phillips, L. M., [pharmacology of acctanilide. 1. toxicity, III, 696.

Munch, J. G. See Youngken, H. W. 1. Acute

Munch-Petersen, E. See Bull, L. B.

Mundle, N. K. See Nayar, M. R. Munekata, H. See Sakaguchi, K.

Mungen, R., and Spinks, J. W. T., brominesensitised photodecomposition of ozone, I, 54.

Munger, R. S., coeliaco-mesenteric trunk with unique distribution and anastomoses, III, 717.

Muñoz, J. M. See Braun-Menéndez, E., Fasciolo, J. C., and Leloir, L. F.

Munro, F. L. See Shay, II. Munro, H. N. See Bell, G. H. Munro, J. See Reeves, R. E.

Munro, L. A., and Pearce, J. A., time of set of silica gels. V. Effect of alcohols and  $p_{\rm H}$  on "heat of activation," I, 82.

Munslow, R. A. See Schnedorf, J. G. Munson, R. J., and Tyndall, A. M., mobility of positive ions in their own gas, I, 140.

See also David, II. G.

Muntz, J. A. See Miller, B. F. Murae, M., Shiga bacillus formalin-alum vaccine, III, 53.

Murakami, M. See Ida, M. Murakami, R., effect of monochromatic light on enzyme action. XXXIV.-XXXVI., III, 702.

Murakami, T., and Uchiyama, H., functions of extrahepatic bile ducts and secretory function of liver; duodenal movements and evacuation of bile into duodenum during fasting. IV. and V., Ill, 769.

Murata, R., cystine-cysteine studies on blood in asphyxia. III. Asphyxia after administration of blood poisons. IV. Obstruction of aorta, III, 730, 847.

Murayama, K., geology and ore deposit of Ma Lu Kou mine, Manchuria, I, 489. Ore deposit of Pan Ling copper mine, Manchuria, I, 489. Geology and ore deposit of Sha Chin Kou copper mine, Manchuria, I, 489. Rocks and minerals from Lin Chia Tai [pyrite] mine, Manchuria, I, 489.

Murayama, M. See Greenberg, D. M. Murdick, P. P. See Lyall, H. W.

Murdoch, J., pyrostilpnite from Rands-burg, California, I, 353. Crystallo-graphy of ulexite, I, 354.

and Webb, R. W., minerals from S. California. II., I, 352.

Murdock, C. C., interpretation of Laue photographs in terms of reciprocal lattice, I, 153.

Murdock, W. D. See Roepke, M. H. Murgatroyd, F. See Fairley, N. H. Murlin, J. R. See Belasco, I. J., Driver,

M. L., and Nutter, P. E.

Murnane, D. See Bull, L. B.
Murphey, B. F., relative abundance of oxygen isotopes, I, 187.

and Nier, A. O., variations in relative abundance of carbon isotopes, I, 313.

See also Nier, A. O. Murphy, D. See Nolan, T. J. 5—A

Murphy, D. P., measurements of uterine contractions in late pregnancy, III,

Murphy, E., vitamin-C nutrition in a group of school children. II. Dietary evaluation, III, 1037.

Murphy, E. J., Bright, W. C., Whitaker, M. D., Korff, S. A., and Clarke, E. T., relative efficiencies of radioactive neutron sources, I, 234.

Murphy, F. D., Correll, H., and Grill, J. C., intravenous solutions in cardiac failure,

III, 335.

Murphy, G. M., optical methods for study of molecular structure: Raman spectra method, I, 363.

Murphy, J. B., and Sturm, E., transmission of an induced lymphatic leukæmia and lymphosarcoma in rat, III, 1027. See also Blatt, M. L.

Murphy, J. P., and De Barenne, J. G. D., thermocoagulation of motor cortex exclusive of its sixth layer, III, 992.

See also Katzenstein, R., Walker, D. W., and Winternitz, M. C.

Murphy, K. M. Sec Davis, J. II.

Murphy, Q., effect of temperature on viscosity of Amœba dubia protoplasm, III, 300.

Murphy, T. See Nevin, T. E.

Murray, E. W., ventilation (natural and artificial) in relation to the blackout, III, 701.

Murray, G. E., and Purves, C. B., preparation of fibrous iodocellulose nitrates; probable distribution of nitrate groups in partly nitrated celluloses, II, 212.

Murray, J. See Longland, C. J. Murray, J. F., action of sulphonamides on

C. diphtheriæ, III, 907.

Murray, M., and Hoffmann, C. R., guanidine-like substances in blood in

essential epilepsy, III, 7. and Moosnick, F., simultaneous arterial and venous blood cultures, III, 228. Bacteræmia in patients with dental disease, III, 473.

Murray, M. J., and Cleveland, F. F., Raman spectra of ethers containing one or more phenyl groups, I, 148. Atmospheric oxidation of  $\Delta^{\zeta}$ -dodecinene, II, 237.

See also Cleveland, F. F.

Murray, T. J. See Morris, M. L. Murray, W. S., inheritance of mammary

carcinoma in mouse, III, 1026.

Murray-Lyon, R. M., and Biagi, R. W., sulphapyridine in pneumonia of children, III. 608.

Murrill, W. A. See Horton, P. B.

Murtazaev, A., and Abljaev, I., decomposition potentials of salts in liquid ammonia, I, 417.

and Hoffman, J. G., physiological age as a basis for comparison of strains of mice subject to spontaneous mammary carcinoma, III, 888.

and Igamberdiev, I., electrocapillary curves of mercury in liquid ammonia. III. Surface-active organic substances, I, 410.

and Skljarova, Z., viscosity in system ammonia-ethyl alcohol, I, 8.

Murthy, S. N., development of endosperm in Leucas aspera, Spreng, III, 1083. Murti, P. B. R., chemical components of

roots of Decalepis hamiltonii. II. Preparation of inositol by solvent extraction, III, 819.

Murti, P. B. R., and Krishnaswamy, H., wax from flowers of Butea frondosa, III, 1085.

and Seshadri, T. R., chemical components of roots of Decalepis hamiltonii. I. III. Comparison with Hemidesmus indicus (Indian sarsaparilla), II, 265; III, 715. Glycosidic components of flowers of Butea frondosa, II, 282. Occurrence of free butein and butin in flowers of Butea frondosa, III, 1085.

Murty, G. V. L. N., ferric chloride as a permanent standard in the colorimetric determination of nitrate, I, 346.

Murty, K. S. See Gopalarao, G.
Murumcekci, K., atypical amyloidosis
(paramyloidosis), III, 123.

Muschet, M., lantern slides, III, 820.

Muschenheim, C., Forkner, C. E., and
Duerschner, D. R., effect of N<sup>1</sup>-dodecoylsulphanilamide and of sulphapyridine on experimental tuberculosis in rabbits. IIÎ, 293.

Musheev, I. A., and Sviderskaja, T. A., influence of preliminary stretching on onset of fatigue in frog muscle, III, 982.

Mushett, C. W. See Molitor, H.

Musser, R. See Beck, F. F. Mussgnug, F. See Kraus, O.

Mussio Fournier, J. C. See under Fournier, J. C. M.

Mutalinov, B. A., changes in neuroglia with age, III, 9.

Mutermilch, S., Grimberg, A., Agasse-Lafont, E., and Mathis, G., hyperglycamic action of B. coli toxin, III, **419.** 

Muthuswami, T. N., mineral water from Surangudi, I, 308.

Muto, T., radiative collision of neutrons with protons, I, 317.

Mutsaars, IV., adsorption of antibodies of horse antinitroserum by nitro- and diazo-stromas of sheep red cells, III, 323.

and Robert, J., effect of benzaldehyde on antigenic properties of horse scrum, III, 169.

Mutuda, N. See Shingu, II. Mutul, I. F. See Kniaginitschev, M. I.

Muus, J., Coons, A. II., and Salter, W. T., thyroid activity of iodinated serum-albumin. IV. Effect of progressive iodination, III, 753.

Myant, N. B., histamine and absorption of sodium sulphate by stomach, 111, 199.

Myers, D. See Ersner, M. S. Myers, D. R. See Wolfrom, M. L.

Myers, G. B., and Rom, J., acute hæmolytic anæmia, hæmoglobinuria, and uræmia following sulphonamide treatment, III, 126.

See also Schlaeffer, M.

Myers, J., and Burr, G. O., photosynthesis; effects of light of high intensity on Chlorella, III, 58.

Myers, J. D. See McNaught, J. B.

Myers, J. E., Kass, J. P., and Burr, G. O., comparative rates of oxidation of isomeric linolenic acids and their esters,

Myers, V. C., and Mangun, G. H., human heart in health and disease, III, 171. See also Mangun, G. H.

Myers, IV. G., and France, IV. G., properties of thixotropic gels containing ovalbumin as disperse phase, I, 83.

Myerson, A., and Thau, W., ocular pharmacology of furfuryltrimethylammonium iodide, III, 10. Effect of iontophoresis on the eye, III, 11.

Sec also Loman, J., and Rinkel, M.

Myerson, S. See Diamond, J. S. Myles, R. B., familial short esophagus, III, 66.

Mylle, G., and Bogaert, L. van, anatomical and clinical studies of complex hyperkinetic syndromes. I. Familial tremor,

III, 986. Mylon, E. See Winternitz, M. C.

Myrbäck, K., nature of glucosidic linkings in starch, II, 5. Oxidation of aldoses with hypoiodite. VIII. Oxidation of digitoxose with hypoiodite, II, 5. Mysels, K. J. See Jones, G.

Nabarro, J. D. N., pain with glomus tumour, III, 180.

Nachimovitsch, N. See Miljutin, G.

Nachmansohn, D., physiological significance of choline-esterase, III, 225. Choline-esterase in brain and spinal cord of sheep embryos, III, 256.

Coates, C. W., and Cox, R. T., electric potential and activity of choline-esterase in electric organ of Electrophorus electricus, L., 111, 1062.

Nachod, F. C. See LaMer, V. K.
Nadkarny, V. V. See Setlur, S. A.,
and Telang, M. S.

Nadler, S. B. See Butler, M. F. Nådrai, A., therapeutic value of vitamin-  $D_3$ , III, 30. Treatment of rickets with vitamin- $D_3$ , III, 376. Electrocardio-graphy in infancy, III, 421, 560.

Nag, D. C., mineral resources of Mayurb-

hanj State, I, 436.

Nagai, H., preparation of ay-butylene glycol from aldol by high-pressure hydrogenation. I. Reaction with nickel catalyst prepared electrolytically. II. Reaction with mixed catalyst of nickel and alumina, II, 181.

Nagai, I. See Osawa, Y.

Nagamiya, T., solid helium, I, 406.
Nagao, N., feeding experiments with
4-dimethylamino-4'-methylazobenzene and other polymethyl derivatives on white rats, III, 451. Induction of sarcomata in white rats by combined subcutaneous injection of kicselguhr and o-aminoazotoluene, III, 451.

Nagasawa, F., polarisation in heterocyclic rings with aromatic character. Polarisation in the thiazole ring. III.,

II, 339.

Nagase, M., flavonol glucoside Euphorbia thymifolia, L., III, 945. Nagata, M. See Kawashima, R. from

Nagayo, M., heteroplastic transplantation of mouse sarcoma, III, 1027.

Nagazumi, S., disturbance of liver function [with carbon tetrachloride], III, 446. Influence of methemoglobin formation on living body, III, 490.

'Nagel, R. H. See Niederl, J. B.

Nagel, W., Lehmann-Facius cerebrospinal fluid test for schizophrenia, III, 996. Năgeli, T., late observation in dog with

Eck's fistula, III, 201.

Nagelschmidt, G., identification of clay minerals by means of aggregate X-ray diffraction diagrams, I, 308.

Nagelschmidt, G., and King, E. J., biochemistry of silicic acid. IX. Isolation and identification of minerals in lung residues and air-borne dusts from coal mines, III, 298.

Nagelschmidt, K. F., biological effects of high-frequency and magnetic fields, III,

Nageotte, E. See Leprince-Ringuet, L. Nager, F., ossicle changes in otosclerosis, III, 750.

Nagibina, T. D., tertiary acetylenecarbinols with acetylenic hydrogen substituted by

halogen, II, 26.

Nagler, F. P. O., estimation of combining power of Cl. welchii (type A) toxoid, III,

Nagorni, A. V., longevity, III, 17.

Nagy, D., carotenoids in corn gluten, II,

Nagy, V. L. See Bodnår, J.

Nahinsky, P., and Ruben, S., tracer studies using radioactive carbon; oxidation of propionic acid, II, 348.

Nahm, H. See Dirscherl, W. Nahum, E. A. See Krishnan, R. S. Nahum, L. H., Hoff, H. E., and Kaufman, W., influence of temperature on electrogram and monophasic action potential of mammalian heart, III, 651.

Hoff, H. E., and Kisch, B., displacement of RS-T segment, III, 650. Influence of right and left ventricles on electrocardiogram, III, 650.

See also Hoff, H. E.

Naiditch, S., and Yost, D. M., hydrolysis of hydroxylaminedisulphonate ion, I, 476.

Naito, H., and Ishimaru, K., enzymes in fruits and vegetables. IV. Determination of ascorbic acid and activity of its oxidase in tea. VII. Relationship between ascorbic acid and ripening of fruit and vegetables, III, 62, 702.

Ishimaru, K., and Hosoda, Y., enzymes in fruits and vegetables. V. Peroxidase. VIII. Relationship between peroxidase and storage in fruit and vegetables,

III, 301, 795.
Naito, T. See Yanai, M.
Naijar, V. A., and Holt, L. E., jun., thiamin excretion, III, 776.

Nakagawa, T. See Motida, I. Nakagawa, Y., plasticity of isotropic body,

Nakahara, H., mucilage of Brasenia schreberi, Gmel. I. Sugars and gallic acid, III, 62.

Nakahara, W., Inukai, F., and Ugami, S. occurrence of filtrate factor (factor W or vitamin-Bw) in polished rice, III, 210. Dietary requirements for lactation. XI. Non-identity of vitamin-L complex and so-called filtrate factor or factor W, III, 210. Vitamin-L and dextrin diet, III, 1038.

and Mori, Kasuo, production of liver cirrhosis by feeding furfuraldehyde, III, 1025.

Nakai, T., radium content of mineral springs in Japan, I, 133.

Nakajima, K., and Ikeda, M., hydrolysis of proteins at high temperatures and

pressures. I., II, 275.

Nakamiya, Z., and Koizumi, K., absorption spectrum of squalenc, I, 192. Correlation between international unit and cod-liver oil unit of vitamin-A, III, Nakamiya, Z., and Koizumi, K., spectroscopic determination of vitamin-D. II. Stability of vitamin-A and -D towards ultra-violet light. III. Extinction coefficient of oils after addition of known amounts of vitamin-D, III, 211.

Nakamura, Harukichi, and Fukuti. G .. constituents of Equisetum arvense, L., II,

Nakamura, Hiroshi. See Nishina, Y. Nakamura, I., effect of amount of food consumed in animal experiments, III,

See also Fujikawa, F.

Nakamura, N., internal rotation of ethane, propane, and butane derivatives by the Raman effect, I, 447.

Nakamura, S., and Kanda, E., Raman effect in ethane and butane, I, 447.

Nakamura, Y., and Satow, K., enzyme action, III, 701.

Nakaoki, T., colouring matters of flavone series.

VI. Constituents of Zinnia elegans (Jacq.); synthesis of apigenin glucoside, II, 330.

Nakayama, H. See Nishina, Y.

Nakayama, M., renal proteolysis following

phosphorus poisoning and anaphylactic shock, III, 470. Proteolytic action of kidney. I. and II., III, 470. Proteo-lytic action of rabbit's liver after poisoning with cantharidin or uranyl nitrate, III, 470.

Nakazima, T. See Hayashi, S.

Naldrett, S. N., and Mass, O., viscosity of carbon dioxide in the critical region, 1, 35.

Nambu, K. See Urushibara, Y.

Namek, M. See Baur, E. Nan, S. S. See Kasahara, M.

Nandi, B. K., chemotherapy of malaria; 6-methoxyquinolyl-8-hydrazine and synthesis of heterocyclic compounds from it, II, 22. Synthesis of benzonicotine, II, 23.

Nandi, K. N. See Balfe, M. P. Naqvi, M. A. See Prasad, M. Narang, K.S. See Juneja, G.L.

Narasimhaiya, R. L., and Doraiswami, C. S., determining ultrasonic velocities in liquids, I, 20.

See also Sibaiya, L.

Narasimhan, V. See Joshi, S. S.

Narayan, A. L., new  $(2 \rightarrow 2)$  band in spectrum of OD, I, 290.

and Ananthasubrahmanyam, C. K., precision direct-reading spectrophotometer, I, 282.
Narayan, R. S., and Kulkarni, B. R.,

refractive index of electrolytic solutions at low concentrations, I, 162.

Narayana, N. See Leley, V. K. Narayanan, K. G. A. See Damodaran, M.

Náray-Szabó, I., crystal chemistry of silicates, I, 154.Nargand, K. S. See Bokil, K. V., Mehta,

B. S., Savkar, G. S., and Vyas, V. A.

Narita, M. See Tominaga, H. Naruse, T. See Asano, M. Nash, A. W. See Green, S. J.

Nassau, E., culture of tubercle bacilli from laryngeal swabs, III, 806.

Natanson, E. M., preparation of organosols

of heavy metals, I, 375.

Natanson, G. L., lifetime of activated triatomic molecules and mechanism of predissociation of nitrosyl chloride, I, 364. Photochemistry of fluorescein dyes, I, 423.

See also Lubarski, G. D., and Natanson,

Natanson, S. V., optical sensitisation of silver halides. VIII. Spectral photo-sensitivity and absorption of silver salts of phthalein dyes, I, 446.

and Natanson, G. L., mechanism of regeneration of dye in course of sensitised photolysis of silver halide, I,

Natelson, S., and Gottfried, S. P., synthesis of derivatives of s-diphenylethanc related to materials occurring naturally. III. Relationship between benzylidenephthalide and benzylisoquinoline alka-Īoids, II, 133.

Naterman, H. L., treatment of hay fever by injections of suspended pollen tannate,

JII, 1081.

Nath, N. S. N., and Chalam, E. V., intensities of Raman lines in carbon dioxide, I, 399.

See also Raman, (Sir) C. V.

Nathanson, I. T., Miller, R. B., Towne, L. E., and Aub, J. C., close correlation of androgen and creatinine excretion in normal children, III, 671.

Towne, L. E., and Aub, J. C., normal excretion of sex hormones in child-hood, III, 671.

See also Salter, W. T.

Nathanson, M. H., sulphonamide diffusion into pericardium, IIÎ, 610.

Nathhorst, H., cholelithiasis in children, III, 15.

Nathoo, H. E., spontaneous bleeding from gums in purpura, III, 833.

Naugolnaja, T. N. Sec Efimenko, O. M. Naumann, H. N., simplified urea determination for routine blood chemistry, III, 167.

Naumova, Z. K. See Vanscheidt, A. A. Naves, Y. R., and Perrottet, E., volatile vegetable substances. XIII. a- and β-Vetivone, II, 197.

Naville, F., and Herrmann, R., Meinicke's flocculation reaction in forensic medicine,

III, 557.

Nawrocki, C. Z. See Jacobsen, R. P. Nayar, M. R., and Mundle, N. K., magnetic susceptibility of aqueous iodic acid;

constitution of iodic acid, I, 294. Nayar, P. G. N., temperature variation of

Raman frequency of diamond, I, 321. Luminescence, absorption, and scattering of light in diamonds. I. III., 1, 399, 446.

Nayer, H. R. See Siltzbach, L. E. Naylor, A. W., effects of temperature, calcium, and arsenious acid on seedlings

of Poa pratensis, III, 540.

Nazarenko, V. A., reactions of aminophenols with copper and iron, II, 95.

arov, I. N., acetylene derivatives. XIV. Synthesis of  $\beta\beta$ -dialkyldivinyl Nazarov, ketones by isomerisation of tert .vinylethylcarbinol, XV. Vinylketones and their polymerisation, II, 185.

and Romanov, V. M., acetylene derivatives. XVI. Action of ethylene oxide on vinylethinylearbinols; esterification of  $\beta$ -hydroxyethyl ethers of vinylethinylcarbinols with acids, II, 185.

Nazarova, Z. N., and Tzukervanik, I., alkylation of aromatic compounds by means of alcohols in presence of anhydrous ferric chloride, II, 246.

Neal, J. B., Appelbaum, E., and Jackson, H. W., sulphapyridine in pneumococcal and influenzal meningitis, III, 460.

Neal, J. B., and Dillenberg, S. M., treatment of chronic encephalitis [with Bulgarian belladonna], IIÎ, 664.

Neal, P. A., Dressen, W. C., Edwards, T. I., Reinhart, W. H., Webster, S. H., Castberg, H. T., and Fairhall, L. T., effect of exposure to lead arsenate, III, 531.

See also Brubach, H. F., and Flinn, R. H. Neale, S. M., and Stringfellow, W. A., primary sorption of water by cotton, Ī, 464.

and Waite, R., viscosity of cellulose and its nitrate in dilute solution, I, 297.

Necheles, H., and Olson, W. H., constant injection apparatus, III, 946.

Olson, W. H., and Morris, R., depression of gastric motility by insulin, III. 100Ğ.

Olson, W. H., and Scruggs, W., histaminase [effects on digestive tract], III, 1015.

See also Levinson, S. O., and Meyer, J. Nedungadi, T. M. K., effect of crystal orientation on Raman effect in naphthalene and benzophenone, I, 292.

See also Raman, (Ŝir) C. V. Needham, D. M. See Lu, G. D.

Needham, J., Lehmann, Hermann, and Nowinski, W. W., glycolysis in embryonic tissue, III, 319.

and Lerner, I. M., terminology of relative growth rates, III, 157.

Needier, A. W. H., temperatures and

salinities under ice in a shallow inlet, I, 434.

Neelakantam, K., gravimetric determination of manganese with 8-hydroxy-quinoline, I, 220. Determination of lead permanganometrically (Low's method), I, 346.

and Row, L. R., lanthanum nitrate test for acetate in inorganic qualitative

analysis, II, 235.

Neergaard, K. von, Haffter, C., and Bruck, M., nature of urate diathesis, III, 379.

Negishi, R., Kimura, O., and Kamiike, O., thermodynamics of production of hydrocarbons from calcium carbide, I, 469.

Negrin, J., jun., staining microglia, III, 242. Silver impregnation method for reticulum, III, 489.

Neher, H. V., and Pickering, W. H., latitude effect of extensive cosmic-ray showers, I, 25. Light weight high voltage supply for Geiger counters, I, 223. and Stever, H. G., mean lifetime of

mesotron from electroscope data, I, 144.

Neiman, I. See Biber, V. Neish, A. C., and Hibbert, H., effect of crown gall formation on chemical com-

position of beet, III, 404.

Nekrassov, B. V., structure of hydrides of boron, I, 29. Properties of ions. V. Simplest form of equation for crystal lattice energy, I, 323. Co-ordinational structure and chemical properties of hydrides of boron, I, 323.

and Botschvar, D. A., properties of ions. IV. Ionic radii and exchange reactions of alkali halides, I, 336.

and Zotov, G. V., electrolytic dissociation of complex cyanides of iron, I, 468. Nekrassov, N. I. See Tokarev, N. V.

Nelis, P., and Temsche, M. van, alcohol level in blood and urine of persons showing signs of drunkenness, III, 295. Nelson, A. A., and Morris, H. J., reticulum

cell lymphosarcoma in rats, III, 1028.

Nelson, C. See Montgomery, M. L. Nelson, C. F., and Nelson, R. C., medical management of fractures, III, 410.

Nelson, D. See Burrill, M. W.

Nelson, D. E. See Tatum, H. J. Nelson, E., Neher-Stever experiment, I, 145.

Nelson, E. C. See Cooper, E. P. Nelson, E. W., and Newton, R. F., heat capacity of glucose glass, I, 457.

Nelson, G. M., and Rehfuss, M. E., gallbladder disease, III, 446.

Nelson, J. F. See Fantl, P.Nelson, J. H. See Bigger, J. W.

Nelson, J. M. See Gregg, D. C. Nelson, J. W., Lyster, S. C., and Cartland, G. F., pharmacology of new synthetic hypnotics, III, 914.

See also Knizenga, M. H. Nelson, L. M. See Strakosch, E. A.

Nelson, M. E., and Werkman, C. H., dissimilation of fructose by heterofermentative lactic acid bacteria, III,

Nelson, M. G., intimal coronary artery hæmorrhage as factor in the causation of

coronary occlusion, III, 842.

Nelson, M. M., Emerson, G. A., and Evans, H. M., growth-stimulating activity of a-tocopherol, III, 599.

Nelson, N., Grayman, I., and Mirsky, I. A., utilisation of acetone bodies. IV. Relation between concentration and rate of utilisation of β-hydroxybutyric acid by rats, III, 900.

See also Elgart, S., and Mirsky, I. A.

Nelson, O. A., sodium arsenites: system Na<sub>2</sub>O-As<sub>2</sub>O<sub>3</sub>-H<sub>2</sub>O at 35°, I, 416.

Nelson, R. B. See Langmuir, D. B.

Nelson, R. C. See Nelson, C. F., and Warkany, J.

Nelson, R. L., and Venable, D. R., congenital absence of spleen and chronic amniotic fluid pneumonia, III, 638.

Nelson, V. E. See Keil, H. L., and Reeder, W.

Nelson, W. See Snelling, C. E.
Nelson, W. C. See Hill, G. A.
Nelson, W. E. Sec Furcolow, M. I.,

Holmes, F. E., and Mirsky, I. A. Nelson, W. O. See Segaloff, A. Nemerovski, N. See Polesitzki, A.

Neogi, P., and Mondal, K. L., co-ordinated mercury compounds with ethylene- and propylene-diamines, II, 317. Nerdle, E. K., nitrogen nutrition in re-

lation to photoperiodism in Xanthium pennsylvanicum, III, 480.

Neros, Č. A., and Eversole, W. G., surface tension of aqueous perchloric acid at 15°, 25°, and 50° C., I, 206.

Nesbit, M. E. See Longley, B. J.

Nesbit, R. M., and Ratlif, R. K., hyper-

tension with unilateral renal disease, III, 337.

Nesmejanov, A. N. See Friedlina, R. H. Ness, A. T. See Tartar, H. V.

Nesvishski, M. See Balandin, A. A. Netschaeva, A. S., proteolytic decomposition during drying of yeast, III, 706.

Netschaeva, P. V., glycolytic action of blood in subjects of advanced age, III, 7.

Netz, C. V., Rogers, C. H., and Jenkins, G. L., phytochemistry and histology of

Purshia tridentata (Pursh), D.C., III, 541.

Neubeck, C. E. See Krahl, M. E.

Nenberger, A., preparation of 3-methylglucosamine, II, 88. Action of periodio acid on glucosamine derivatives, II, 88. Neufach, S. A., transformation of cholesterol by action of ultra-violet light in contact with air, II, 250. Decomposition of glutathione by blood serum, III. 970.

See also Kleinenberg, H. E.

Neuhaus, A., isomorphism and miscibility of organic compounds. I. Isomorphous replacement of hydrogen, the hydroxyl, amino-, and methyl groups, and chlorine in crystal lattice of naphthalene, I, 156.

Neuhaus, M. E., relation between composition of food and efficacy of genohormone  $c^+n$  in Drosophila melanogaster,

III, 370.

Neuman, N. F. See Psarev, G. M. Neumann, F. W. See Emerson, W. S. Neumann, H. Sec Löwenstein, W. Neumann, M. B. Sec Aivazov, B. V., and Keyer, N. P.

Neumann, R., leiomyosarcoma of lung, III, 83. Cardi-aorta and coronary sclerosis, III, 423.

Neurath, H., cell for optical diffusion measurements on solutions, I, 389. Cooper, G. R., and Erickson, J. O., shape

of protein molecules. II. Viscosity and diffusion studies of native proteins, III, 532.

Cooper, G. R., Sharp, D. G., Taylor, A. R., Beard, Dorothy, and Beard, J. W., molecular size, shape, and homogeneity of rabbit papilloma virus

protein, III, 808.

Neuweiler, W., fœtal iron metabolism, III, 163. Metabolism of aneurin in pregnancy and puerperium, III, 209. Synthesis of hippuric acid in toxemia of pregnancy, III, 378. Bloodvitamin-C content during pregnancy, III, 419. Absorption of vitamin- $B_1$ from the placenta, III, 519.

and Grimm, W., excretion of histidine in urine, III, 366.

Neuwirth, I., and Klosterman, J. A., production of lactic acid in oral cavity, III, 581.

Nevin, S. See Russell, D. S.

Nevin, T. E., and Murphy, T., (0, 3) band
of first negative system of O<sub>2</sub>+, I, 192.

Nevot, A. See Debré, R., and Urbain, A.

Nevrajeva, N. See Kuzin, A. Newbound, K. B. See Langstroth, G. O. Newburger, R. A., effect of deoxycorticosterone acetate on hypochloræmia in pneumonia, III, 868.

Newcomb, R. C., gray quartz breccia ore body of Highland Mine, Butte, Montana,

I, 436.

Newell, E. D., gas gangrene, III, 142. Newell, J. M. See Cohn, E. J.

Newhart, H., conservation of hearing, III, 12.

Newitt, D. M. See Lu, H. Newkirk, A. E. See Laubengayer, A. W.Newman, A. H., eruption resembling lichen planus due to wheat germ, III, 397.

Newman, H. F., experimental uterotubal insufflation in rabbit, III, 873.

and Mayer, M. D., experimental uterotubal insufflation, III, 873.

Newman, H. W. See Schaller, IV. F. Newman, M. S., and Cathcart, J. A., orientation of chrysene, II, 38.

and Wise, P. H., synthesis of 5-methoxy-10-methyl-1:2-benzanthracene and re-

lated compounds, II, 360. Newschwander, W. W. Seo Tartar, H. V. Newton, R. F. See Nelson, E. W.

Ney, L. F. See Carter, H. E.

Nezgovorov, L., amylase in chloroplasts. III, 937.

Ni, T. G., water distribution in [brain] tissues of encephalomalacic chickens [from vitamin-E deficiency], III, 431.

Nichol, J. E., indications for decapsulation

of kidney, III, 273.

Nicholls, E. E., bee sting therapy in rheumatoid arthritis, III, 919.

Nicholls, J. See Sullivan, M. Nicholls, J. V. See Tooke, F. T.

Nichols, A. A., effect of variations in fat percentage and in pH of milk media on heat-resistance of bacteria, III, 625.

Nichols, B. H., and Nosik, W. A., myelography with thorotrast, III, 660. and Raines, J. R., Paget's disease of bone (osteitis deformans), III, 951.

Nichols, C. F., syphilis of aorta and aortic valve area, III, 422.

Nichols, C. W., synthetic glycerol (Shell) in

clearing of embryos in toto, III, 321. Nichols, D. R. See Kepler, E. J.

Nichols, J. Seo Kass, J. P. Nichols, M. L., and Smith, E. C., coprecipitation with barium sulphate, I,

and White, B. E., decomposition temperatures of analytical precipitates; calcium carbonate and lead sulphate, I, 343.

Nicholson, P. M. See Cartledge, G. H. Nicholson, D. E. See Hodgson, H. H.

Nicholson, R. I., determination of hydrocyanic acid by the phthalin method, I,

Nicholson, T. F., and Archibald, R. McG., micro-organisms in sugar analysis. III. Effects of salts on activity of Proteus vulgaris in removing glucose, and possible sources of error in use as reagent for determination of glucose, III, 707.

Nicholson, W. M., and Moseley, V. E., use of erythritol tetranitrate as diuretic,

Nickerson, D., and Granville, IV. C., huc-sensibility to dominant wave-length change and relation between saturation and colorimetric purity, III, 92.

Nickerson, R. F., hydrolysis and catalytic oxidation of cellulosic materials, II,

Nickolls, C. L. See Arthur, P.
Nico, R. See Giovambattista, A., and
Sagastume, C. A.
Nicodemus, Z. See Raymond, IV. D.

Nicol, H., soil bacteria and war wounds, III, 228. Food value of broccoli, III,

and Thornton, H.G., competition between related strains of nodule bacteria and its influence on infection of legume host, III, 941.

See also Chen,  $H.\ K.$ 

Nicolaysen, R., and Jansen, J., vitamin-D and bone formation in rats, III, 28.

Nicolet, B. H., and Saidel, L. J., hydroxy-amino-acids of silk proteins, III, 588. and Shinn, L. A., determination of hydroxy-amino-acids of insulin, II, 275. Determination of methylpentoses in presence of pentoses, II, 307. Determination of serine by periodate, II, 308. Lability of serine and threonine towards alkali, when in peptide com-

bination, II, 355. See also Shinn, L. A.

Nicolle, J., ultra-violet absorption of nitrous oxide, I, 26.

Nicolle, P. See Binet, L.

Niederl, J. B., and Abbruscato, F. A., phenolic invert soaps, II, 339.

and Dexter, M. I., invert soaps; quaternary ammonium salts of derivatives of long-chain phenols, II, 250.

and Levy, A. M., mol. wt. by isothermic

distillation, I, 59.
and Nagel, R. H., syntheses in naphthalene and anthracene series, II, 95. Coumaranocoumarans, II, 145. Indanoindanes, II, 221. Condensation of diketones with phenol, II, 249. See also Hart, W. F., and McGreal, M. E.

Niedzielski, E. L., preparation of "silicononyl alcohol," II, 89.
and Nord, F. F., mechanism of Gatter-

mann aldehyde synthesis. I., II, 256. Niehaus, F. W., and Wright, W. D., dis-

secting aneurysm of aorta, III, 734.
Niel, C. B. van. See under Van Niel, C. B. Nield, C. H., Russell, W. C., and Zimmerli, A., spectrophotometric determination of

vitamin- $D_2$  and - $D_3$ , III, 121. Nielsen, A. See Nims, L. F. Nielsen, A. E. See Sadusk, J. F.

Nielsen, H., infra-red spectra of polyatomic molecules, I, 147.

Nielsen, H. H., near infra-red spectrum of water vapour. I. Perpendicular bands of  $v_2$  and  $2v_2$ , I, 291. See also Ebers, E. S., Straley, J. W.,

and Tindal, C. H.

Nielsen, K. Sec Selye, H. Nielsen, W. E. Sec Strohm, J. G.

Nielsen, W. M., Ryerson, C. M., Nordheim, L. W., and Morgan, K. Z., differential measurement of meson lifetime, I, 288. Nielson, A. See Sexton, D. L.

Nielson, N., effect of growth-substance on sedimentation rate of yeast, III, 48.

Nielson, P. E., true lateral hermaphroditism in Sus, III, 952.

Niemann, C., Benson, A. A., and Mead, J. F., synthesis of 3':5'-difluoro-dlthyronine and 3:5-di-iodo-3':5'-difluoro-dl-thyronine, II, 362.

and Danford, V., apparatus for semi-microdetermination of carbon and

hydrogen, II, 56. and Hays, J. T., structure of acet-d-glucosylamide, II, 214.

Mead, J. F., and Benson, A. A., synthesis of 3'-fluoro-dl-thyronine iodinated derivatives, II, 133.

Nier, A. O., Thompson, R. W., and Murphey, B. F., isotopic constitution of lead and the measurement of geological time. III., I, 394.

See also Murphey, B. F., Slade, H. D., and Wood, H. G.

Niethammer, A., behaviour of microscopic soil fungi towards naturally occurring growth-promoting substances, III, 797.

Nightingale, (Miss) D., Taylor, R. G., and Smelser, H. W., action of anhydrous ferric chloride on alkylbenzenes, II, 90.

Niini, A., kinetic interpretation of osmosis, 1, 296.

Nikanorov, K. See Arbusov, B.
Nikiforova, K. V., age of continental deposits of eastern slope of South Urals, I, 227.

Nikitin, B. A., rare gases. VI. Compound

of xenon with phenol, I, 342.

Nikitin, E. K. See Tschelincev, V. V.
Nikitin, L. V., electro-acoustic chemical
effects. V. Reception of sound by platinum electrodes and by mercury electrodes covered with colloidal membranes, I, 85.

Nikitin, N. V., synthesis and destruction of

proteins in animal organism, III, 31.
Nikitin, V. M., and Razumov, N. V., promoting action of mercury on aluminium oxide in dehydration of ethyl alcohol, I, 478.

Nikitina, E. A., highly substituted sodium

salts of phosphomolybdic acid, I, 56. Highly substituted sodium salts of phosphotungstic acid, 1, 88.

Sec also Kurnakov, N. S.

Nikolaev, A. V., and Rubinschtein, A. M., heating curve method of study of thermal stability and transformations of complex compounds of platinum, I, 278.

and Tschelischtscheva, A.G., 25° isotherm of systems CaO-B2O3-H2O and MgO- $B_2O_3-H_2O$ , I, 169.

See also Berg, L. G. Nikolaeva, J. J. See Golova, O. P. Nikolaeva, M. A. See Preis, E. M. Nikonova, I. N. See Popov, M. M.

Nikuni, Z., Hayashi, H., and Tsuji, S., zinc dust distillation of benzenoid compounds, II, 322.

Nilakantan, P. See Raman, (Sir) C. V. Niles, G. E. See Hauser, E. A.

Niles, H. D., dermatitis from indirect exposure to fur dye, III, 698. Dermatitis of hands caused by liquid petrolatum in a proprietary hair tonic, III, 699.

Nilov, V. I., and Pavlenko, O. N., variation of prevailing direction of invertase action in plants in relation to growth and development, III, 712. Variations in direction of invertase action at various levels in leaves, III, 712.

Nilson, E. L. See Berens, C.

Nilsson, R., growth of legume bacteria, III,

Nilsson, T.,  $\delta$ -valcrosultone, II, 185.

Nimmo, C. See Luck, J. M.

Nims,  $\hat{L}$ . F., Marshall, C., and Nielsen, A., effect of local freezing on electrical activity of the cerebral cortex, III, 742.

See also Marshall, C.

Nisbet, R. N. See Hogan, A. G. Nishewitz, S. See Stoll, B.

Nishi, S., arterial system of hand in monkeys, III, 637.

Nishi, T., determination of nitrogen content of organic compounds by Dumas method, II, 180.

Nishida, K. See Uota, H.

Nishida, S., colour reaction of aromatic ≼nitro-compounds, II, 156.

Nishikawa, M. See Kuwada, S. Nishikawa, T., action of copper compounds on 5-methyl-2-thiobarbituric acid, II, 376.

Nishina, Y., and Birus, K., neutral mesons in cosmic rays, I, 442.

Birus, K., Sekido, Y., and Miyazaki, Y. transformation effect of neutral mesotrons, I, 442.

Endo, S., and Nakayama, H., bacterial synthesis of dicarboxylic acids by means of radioactive carbonic acid, III, 926.

Iimori, T., Kubo, H., and Nakayama, H., exchange reaction between gaseous and combined nitrogen, I, 420.

Nakamura, Hiroshi, and Nakayama, H., effect of neutrons on photosynthesis, III, 314.

Sekido, Y., Miyazaki, Y., and Masuda, T., cosmic rays at a depth equivalent to 1400 metres of water, I, 191.

Nishina, Y., Yasaki, T., Kimura, K., and Ikawa, M., fission products of uranium by fast neutrons, I, 3, 190, 288.

Nishizawa, K., synthesis of glucosides, II, 314. Laminarin and mannitol of brown algæ. II. Seasonal variation of their content in Eisenia bicyclis. III. Variation of content during growth, III, 938.

Nishnik, A. T., electrolytic study of indium trichloride in acetone, I, 268. Determination of indium, I, 306.

Nisi-. See under Nishi-. Nissan, A. H., and Dunstan, A. E., viscosities of homologous series at equal temperatures, I, 459.

Nitschmann, G., persistence of fine struc-ture of faces of growing sodium chloride crystals. I. Deposition of solid and supersaturation at different stages of growth of sodium chloride crystals, I, 371.

See also Spangenberg, K.

Nitschmann, H., and Guggisberg, H., streaming optical and viscometric investigations of state of solution of casein. I., I, 334.

See also Lotmar, W. Nitta, T. See Urushibara, Y.

Nitzescu, I. I., Angelesco, C., and Timus, D., changes in nerve and muscle excitability during hyper-vitaminosis-D, III, 895.

and Ioanid, V., vitamin-B<sub>1</sub> and blood-sugar, III, 892. Blood-sugar in chickens

with vitamin-B<sub>1</sub> deficiency, III, 892. and Suciu-Stan, M., glutathione in blood and tissues of animals in training, III,

Niven, C. F., jun., Smiley, K. L., and Sherman, J. M., polysaccharides synthesised by Streptococcus salivarius and S. bovis, III, 804.

Niven, R. B., and Gilpin, A., chronic myeloid leukæmia, III, 835.

Niwa, T., effect of drugs on intraocular pressure, III, 11.

Nix, F. C., Beyer, H. G., and Dunning, J. R., neutron studies of order in iron-nickel alloys, I, 80.

and MaeNair, D., interferometric dilatometer with photographic recording, I, 224.

Nixon, E. A., surgical treatment of femoral arteriovenous aneurysm, III, 844.

Nixon, L. W. See Whitmore, F. C. Nixon, N., treatment of Graves' disease in

children, III, 436.

Nixon, R. W., and Gardner, F. E., effect of growth substances on influorescences of dates, III, 818.

Nizami, S. B. See Ramlal, N.

Nizovkina, T. See Moldavski, B. Njegovan, V., phenomenological signifi-Njegovan, V., phenomenological signifi-cance of thermodynamic constants, I, 35. Potential energy in thermodynamics, I,

Nobécourt, P., synthesis of vitamin- $B_1$  in vegetable tissue cultures, III, 939.

Noble, D., and Halley, C. R. L., unusual reaction to bee sting, III, 813.

Noble, R. L., and Collip, J. B., regression of æstrogen-induced mammary tumours in female rats following removal of stimulus, 111, 268.

Noble, T. A., Wigodsky, H. S., and Ivy, A. C., effect of gastric juice on erythrocytes of newborn rats, III, 552.

Nobuoka, Z., oxidation and reduction of reticulocytes in hæmorrhagic anæmia, III, 415.

Nockolds, S. R., Garabal Hill-Glen Fyne igneous complex, I, 356.

Noda, Y., increase in blood coagulability by oxalate, III, 555.

Noetzel, H., melanin-forming sympathico-

blastoma of adrenal, III, 94. Nogami, H., synthesis of 6:8-dimethoxy-3-

I. Alkylidenealkylisocoumarins. phthalide derivatives. II. 6:8-Dimethoxy-3-methylisocoumarin, II, 301.

Nohara, F. S., absorption and excretion of drugs after rectal administration, III,

Nolan, A. F. See Hull, F. E.
Nolan, L. S. See Vickery, II. B.
Nolan, P. J., recombination law for weak ionisation [in atmospheric air], I, 393.

Nolan, T. J., and Murphy, D., chlorination of derivatives of o-orsellinic acid, II, 195. Noll, C. I. See Whitmore, F. C.

Noller, C. R., and Carson, J. F., saponins and sapogenins. XIX. Decarboxyl-

ation of echinocystic acid, II, 370.
and Lieberman, S., saponins and sapogenins. XVIII. Non-identity of chlorogenonic, digitogenie, and digitoic acids, II, 375.

See also Carson, J. F., and Ladenburg,

Nolte, G., X-ray appearances of lungs and gastro-intestinal tract in newborn as evidence of live birth, III, 340.

Nomura, K. See Watanabe, M.

Nonaka, I., excitation of  $\gamma$ -rays by fast neutrons of different energy, I, 286. Relative number of y-ray quanta emitted per capture of a thermal neutron, I, 440. Resonance capture of slow neutrons and γ-rays, I, 440.

Nonaka, N., Harazawa, J., and Hoshika, F., recovery of pathogenicity of B.C.G. by passage through white rats, III, 933.

Nonidez, J. F., innervation of heart. II. Afferent nerve endings in large arteries and veins, III, 550.

Noonan, T. R. See Dean, R. B. Norcross, J. W., and McFarland, M. D., intravenous 2-methyl-1:4-naphthaquinone in hypoprothrombinæmia, III, 328. Nord, F. F., alcoholic fermentation, III, 227.

See also Niedzielski,  $E.\ L.$ 

Nordenskjöld, A., sulphonamide compounds in gonorrhæa, III, 461. Nordheim, L. W., nature of meson decay, I,

289.

See also Nielsen, W. M.

Nordsieck, A. See Lamb, W. E., jun. Norman, A. G., Wilsie, C. P., and Gaessler, IV. G., fructosan content of grasses adapted to Iowa, III, 943.

See also Bartholomew, W. V.

Norman, D., and Johnson, W. W. A., spectrographic study of Central American and Asiatic jades, I, 229.

Norman, R. M., nerve cell swelling of juvenile amaurotic family idiocy type associated with tuberose sclerosis in infant aged twelve months, III, 345.

and Taylor, A. L., congenital diverticu-lum of left ventricle in a case of epiloia, III, 318.

Norris, A., true surface densities of protein

films, I, 166.

Norris, A. D. See Bell, R. P.
Norris, C. H., elasticity of myxomycete Physarum polycephalum, III, 300.

Norris, E. R., and Hauschildt, J., vitamin-B complex required by albino mouse, III. 116.

Norris, E. R., and Troescher, E. E., synthesis of sterol by tumour-bearing rats, III, 1028.

See also Simmons, R. W.

Norris, F. A., Rusoff, L. I., Miller, E. S., and Bur., G. O., fractional distillation of unsaturated fatty acids. I. Effect of vacuum distillation on the absorption spectra of polyethenoid esters from codliver oil, II, 239.

Norris, L. C., nutritional deficiency diseases

of chickens, III, 1033.

and Bauernfeind, J. C., effect of level of dietary riboflavin on quantity stored in eggs and rate of storage, III, 596. Sec also Caskey, C. D.

Norris, R., Raman spectrum and specific heat of crystalline sulphur, I, 321.

Norrish, R. G. W., chain photolysis of acetaldehyde in intermittent light, I, 275. and Reagh, J. D., surface as a limiting factor in slow combustion of hydrocarbons, I, 118.

and Smith, W. MacF., quenching of resonance radiation of sodium, I, 28.

See also Dainton, F. S.

North, II. B. See Piifiner, J. J.
Northrop, J. II., purification of diphtheria
antitoxin, III, 802.

See also Herriott, R. M.

Northup, D. W., and Van Liere, E. J., emptying time of normal human stomach as influenced by sulphapyridine, III, 215.

See also Emerson, G. A.

Norton, A. R. See Royer, G. L. Norton, F. H., hydrothermal formation of clay minerals in the laboratory. II., I,

39ž. Nosik, W. A. See Higgins, C. C., and

Nichols, B. H. Nottingham, W. B., temperature dependence of work function of tungsten, I, 139. Energy losses attending thermionic

emission of electrons from metals, I, 312. Novák, E., intracardiac injection, III, 79. Ovarian tumours of endocrine nature, III, 673.

Novelli, A., sensitive colour reaction for 2-methyl-1:4-naphthaquinone and related compounds, II, 298. Hydantoins. I., II, 334.

and Somaglino, J. C., sulphonamide [derivatives]. II. Diphenyl derivatives, II, 165.

Noverraz, M. See Gigon, A. Novikova, S. I. See Guli, M. F., and Ribak, P. J.

Novitski, E. See Sturtevant, A. H. Novochatski, I. P., and Kalinin, S. K., lithium in thermal waters of Kasakhstan, I, 225.

Novoselova, A. V., equilibria in system NH<sub>4</sub>F-AlF<sub>3</sub>-H<sub>2</sub>O, at 25°, I, 377.

Nowacki, W., crystal structure of scandium trifluoride, I, 154. "Form," fashion," and " habit " concepts in crystal morphology, I, 326.

Nowak, S. J., chronic hypertension produced by carotid sinus and aortic de-

pressor nerve section, III, 80.

Nowakovsky, S. See Darrow, R. R.

Nowinski, W. W. See Needham, J.

Noyes, B., circuit for temperature controls, I, 431.

Noyons, A. K. M. See Everdingen, W. A. G. van.

Nürmberger, W., animal experiments on production of athletic lung and its involution, III, 425.

Nugent, O. B., and Ilg, V., developments on orthoptics with reference to reading problems, III, 747.

Nukada,  $H_{\cdot \cdot}$ , calculations of  $p_{\rm H}$  in buffer solutions on basis of Debye and Hückel's theory, I, 414. Reducing sugars in pedunculus of *Hovenia dulcis*, Thunberg, III, 1084.

Numers, C. von, luteinised granulosa cell tumour, III, 358.

Nunester, W. J. See Youngner, J. S. Nunn, L. C. A. See Dolby, D. E. Nunn, L. G., jun. See Johnson, C. R.

Nussbaum, S. See Rascoff, H.
Nutini, L. G., and Cook, E. S., [action of cream and lotions on] skin respiration [Warburg technique], III, 918.

Nutman, F. J., physiology of Coffea arabica. III. Transpiration rates of whole trees in relation to natural environmental conditions, III, 817.

Nutman, P. S., vernalisation of cereals. VII. Formation and growth of dwarf embryos of rye, III, 1082.

Nutter, P. B., gastroscopic appearances of acute and chronic gastritis, III, 878. See also Palmer, W. L.

Nutter, P. E., deficiency of tissue-glycogen during fasting and fatigue and partial recovery without food, III, 1032

and Murlin, J. R., glycogen formation in liver and muscle from glucose and fructose after muscular exhaustion, III, 1032.

Nutting, G. C., and Harkins, W. D., viscosity of monolayers: test of canal viscometer, I, 257.

and Long, F. A., change with time of surface tension of sodium laurate solutions, I, 165.

See also Kraus, D. L., and Long, F. A. Nutting, P. G., time and temperature effects in formation of colloidal dispersions, I, 184.

Nuzie, S. B., Nuzie, S. L., and Stigers, W. E., lowering of body temperatures, 111, 1057.

Nuzie, S. L. See Nuzie, S. B.

Nyboer, J., Spence, M. J., and MacNeal, W. J., heart sounds in experimental endocarditis lenta in rabbits before death, III, 841.

Nye, H.A. See Rarita, W.Nygaard, K.K., Giffin, H.Z., and Pemberton, J. de J., coagulability of blood in essential thrombocytopenic purpura and other diseases associated with thrombocytopenia; III, 163.

See also Barker, N. IV., and Salomonsen, L.

Nyman, G. A., and Mikander, L., azulenes from Ledum camphor, II, 299.

0.

Oana, S., and Kuroda, K., geochemical studies of volcanoes of Japan. XXIV. Radon content of mineral waters in Masutomi, I, 433. Oastler, E. G. See Hertz, S.

Oba, M. See Sikinami, Y.

Obal, F. See Unghvary, L. von.

Obayashi, Y. Sce Yanagisawa, K. Oberright, E. A. See Spencer, C. C. Oberst, F. W., and Andrews, H. L., electrolytic dissociation of morphine derivatives and synthetic analgesic compounds, III, 295. Oberst, F. W., and Plass, E. D., acid-base balance in plasma and blood cells of normal non-pregnant, pregnant, and puerperal women, III, 246. Acid-base balance and water concentration of blood during toxemia of late pregnancy, III,

Obiditsch, R. A., pathological changes in skin in sprue, III, 456.

Obrador, S. See McKail, R. A.
Obrastzov, J. See Frenkel, J.
O'Brien, C. See Kaufman, P.
O'Brien, F. J., and Bonisteel, W. J., fungistatic value of ointments, 111, 909.

O'Brien, S. J., and Bobalek, E. G., partial pressure of hydrogen bromide from its solutions in aprotic solvents at 25°, I, 251.

Kenny, C. L., and Fuxa, R. J., system sodium bromide-hydrogen bromide-

water, I, 169. O'Bryan, H. M., and Skinner, H. W. B., soft X-ray spectroscopy of solids. II. Emission spectra from simple chemical compounds, I, 21.

Obšil, K., blossom hormone [in plants], III. 403:

Occhialini, G. P. S., and Schönberg, M., ultra-soft components of cosmic rays.

Ochiai, E., and Ikuma, S., N-cyanomethylpyrrole and its Hoesch reaction, II, 52. and Ito, Y., synthesis of 3:5-diamino-4-

morpholinopyridine, II, 339. and Katada,  $\hat{M}$ ., synthesis of methoxy- $\gamma$ -

diethylaminopropyl derivatives of benzthiazole and benziminazole, II, 340.

and Kobayashi, E., reduction of 1-acetyl-2-methylindolidine, II, 53.

and Kokeguchi, K., polarisation in heterocyclic rings with aromatic character. X. Polarisation in quinoline ring, II, 147.

and Takubo, T., synthesis of heterocyclic derivatives of diaryl sulphones. I., II, 341.

and Tsuda, K., splitting of pyrrolidine derivatives by cyanogen bromide, 11,52.

and Utahashi, K., polarisation in heterocyclic rings with aromatic character. XI. Substitution of phenylglyoxalines, II, 149.

and Yanai, M., polarisation in heterocyclic rings with aromatic character. XIII. Polarisation in pyrimidine rings,

Ochoa, S., "coupling" of phosphorylation with oxidation of pyruvic acid in brain, III, 525.

Ochsenreiter, O. See Hendel, J. M.

O'Connor, J. See Rudnick, P. O'Connor, J. J. See McBain, J. W. O'Connor, (Miss) M. See Reilly, J.

O'Connor, R. J., evolutionary significance of embryology of amphibian nephric system, III, 3.

O'Connor, W. F., and Drumm, P. J., pigments of Iris pseudacorus, III, 315. Oda, M. See Miyake, H.

Oda, R., and Ueda, U., organic cationoid

reagents, II, 47. O'Day, K., optical convergence and stere-

opsis in relation to perspective, III, 257. Odel, H. M., myocardial arterioles in hypertension group 4, III, 80. O'Dell, R. A. See Zittle, C. A.

Odgers, P. N. B., presomite human embryo

with a neurenteric canal (embryo R.S.), III, 547.

Odin, M., ascorbic acid determination by photo-electric cell, III, 28. Determination of vitamin-C standards and -C hypovitaminosis, III, 28.

Oe, Y., Takata reaction in surgery, III, 420. Oegg, H., incontinence of faces in infancy,

III, 583.

Oholm, L. W., diffusion of chromic acid[s] in aqueous solution, I, 162. Diffusion of sodium and potassium chromate and dichromate, I, 162.

Ökrös, S., traumatic changes of elastic fibres of lung [and relation of lesion to

time of death], III, 175.

Oertel, A. C. See Piper, C. S. Oeser, H., Bacterium coli in milk, III, 140. Oesper, P. F. See Lewis, G. L.

Oesterheld, G., determination of sulphamidothiazole in urine and body fluids,

Offner, F., recorder for electric potentials; damping of piezoelectric systems, I,

See also Treviño, S. N.

Ogasawara, K. See Tsurumi, M.

Ogata, D., transplantation of lymph heart of frogs and toads, III, 422.

Ogata, K., isotopic weight of 12C., I, 439. See also Okuda, T.

Ogata, S. See Kasahara, M. Ogawa, E., action of magnetised ferromagnetic catalyst, I, 478.

Ogawa, M., glutathione. XVI. Tissue content during starvation, III, 683. and Kobayashi, R., classifications of hæmolytic streptococci, III, 1070. Ogawa, T., vi-antigen of Eberthella typhi,

III, 934.

Ogawa, Teizo, medial and central tegmental tracts in cat, III, 984.

Ogden, E., and Sapirstein, L. A., activation of pitressin by acetic acid, III, 267.

Ogihara, H., histochemistry of indophenol synthesis in eye, III, 9.

Ogle, K. N., induced size effect, III, 92. Imus, H. A., Madigan, L. F., Bannon, R. E., and Wilson, E. C., repeatability of ophthalmo-eikonometer measure-

ments, III, 259. Ogonuki, H., purification of vi-antigen of B. typhosus, III, 311.

Oguri, A. See Tsuda, K.

Oh, Y., minimal lethal doses of Naja-najaatra poison in different animals, III, 130. Ohlheiser, H. R., and Lawrence, L. B., dust counting, III, 384.

Ohling, A, C. See Grüninger, U. Ohlson, M. A. See Donelson, E. G.

Ohno, S., constituents of "senso." Constitution of acetyl-\psi-deacetylbufotalin, II, 328. See also Kondo, H.

Ohr, A., enterococcal scpticæmia [treatment with albucid], III, 460.

Ohsako, F., root extracts of Nothosmyrium japonicum, Miq., III, 617.

Ohsako, H., and Kamei, R., action of adrenaline on sphincter of urinary bladder in situ, III, 437.

Ohta, F., detoxicating hormone of liver I. and II., III, 446. (yakriton). Effect of detoxicating hormone of liver on urinary elimination of phenolsulphonephthalein. I. and II., III, 448. Lactic acid content of human milk and Arakawa's reaction. I. and II., III, 586. Action of yakriton in rabbits poisoned with chromate, III, 617.

See also Sato, A.

Ohta, T., synthesis of rutaecarpine, II, 155. Oille, J. A., cardiac neuroses, III, 842.

Oisi, B., distribution of protein between red cells and plasma, III, 836. Protein distribution between erythrocytes and plasma in (III) kidney and (IV) liver diseases, III, 837.

Oisi, T., effect of urea on local anæsthetic action of cocaine, III, 40.

Ojers, G., Holmes, C. A., and Dragstedt, C. A., liver-histamine in canine anaphylaxis, III, 810. See also Holmes, C. A.

Okami, K. See Plattner, P. A.

Okamoto, G., and Shindo, M., micropyknometer, I, 59.

Okamoto, H., increased hæmolysin formation of Streptococcus hamolyticus by nucleic acid, III, 53

Okamoto, M., equilibrium diagram of copper-nickel-silicon, I, system Ternary solid solution copper-nickel-silicon, I, 9.

Okawa, K., physiological action of silicic acid on plants. II. and III., III, 148.

Okida, K., urotropin and formaldehyde content of urine after administration of urotropin, III, 38.

Okkels,  $\hat{H}$ ., and Sand, K., morphological relationship between testicular nerves and Leydig cells in man, III, 190.

Oku, M., Takizawa, S., and Takigawa, H. chemical composition of leaves of Ricinus communis, L., and cocoon layer of eria silkworms, III, 682.

Okuda, S., blood- and cerebrospinal fluidcalcium of newborn, III, 420. Bloodand cerebrospinal fluid-chloride of newborn, III, 420. Inorganic phosphorus of blood and cerebrospinal fluid of newborn, III, 420. Total fat content in blood and cerebrospinal fluid of newborn, III, 493. Acetone content in blood and cerebrospinal fluid of newborn, III, 493. Iodic acid number in blood and cerebrospinal fluid of newborn, III, 493. Contents of non-proteinnitrogen in blood and cerebrospinal fluid of newborn, III, 493. Sugar in blood and cerebrospinal fluid of newborn, III, 494.

Okuda, T., Ogata, K., Kuroda, H., Shima, S., and Shindo, S., isotopic weights of nickel isotopes by the doublet method, I, 93.

Oknn, M., metabolism of active substances of muscle of warm-blooded animals during work, III, 700.

Okun, S. S. See Schtschukina, M. N. Okuwada, M., artificial cultivation of vaccine virus, III, 312.

Olbrycht, T. M., pseudo-dominance in polygenic characters, III, 488.

Olcott, C. T., arachnodactyly (Marfan's syndrome) with severe anæmia, III, 164. Olcott, H. S., and Fontaine, T. D., composition of cotton-seeds. IV. Lipase of germinated seed, III, 543.

Oldenberg, O., and Sommers, H. S., jun., thermal reaction between hydrogen and oxygen. II. Third explosion limit. III. Temperature coefficient of steady thermal

reaction, I, 170, 302.

Oldershaw, C. F., perforated plate columns for analytical batch determinations, I, 350.

Oldham, F. K., development of hypophysis of armadillo, III, 547. See also Chen, G.

Oldham, T. W. H., and Ubbelohde, A. R., acyl derivatives of iodine, II, 278.

Oldt, M. R. See Rehbock, D. J.

Oleandrov, L. V., micropharmacology of innervation of pancreas, III, 176.

O'Leary, J. See Bishop, G. II.
O'Leary, J. L., structural analysis of lateral geniculate nucleus of cat, III,

Seo also Graham, H. T.

O'Leary, P. A., Bruetseh, W. L., Ebaugh, F. G., Simpson, W. M., Solomon, H. C., Warren, S. L., Vonderlehr, R. A., Usilton, L. J., and Sollins, I. V., fever therapy in general paresis, III, 179. Oleson, J. J. See Hegsted, D. M. Oleson, M. C. See Hodge, H. C.

Oleson, N. L., Chao, K. T., and Crane, H. R., multiple scattering of fast electrons, I, 438.

Oliva, V. See Sagastume, C. A. Oliver, C. P. See Gray, R. C.

Oliver, E. A., Schwartz, Leon, and Warren, L. H., occupational leukoderma, III,

Oliver, E. B. See Johnson, A. S.

Oliver, J., and Lindberg, L., cultivation of tubercle bacilli, III, 806.

Olivet, R. See Chodat, F.

Olliver, M., antiscorbutic values of fruits and vegetables, III, 28.

and Adam, IV. B., vegetables as food, III, 895.

Olmsted, J. M. D., and Morgan, M. W., influence of cervical sympathetic nerve on lens, III, 748.

Olmsted, W. H., diet of doctor, III, 516. Olsan, R. D. See Melampy, R. M.

Olsen, A. G., pectin therapy and pectin types, III, 531.

Olsen, E. F. See Thorn, G. W. Olsen, L. O. Seo Ellett, A. Olsen, M. W., effect of high temperatures for short periods on quality of infertile eggs, III, 22.

and Allen, E. A., treatment of excal and liver trichomoniasis in turkeys by fever therapy, III, 464.
Olsen, R. E., and Cooper, R. J., congenital

nodular glycogenic degeneration of myo-cardium, III, 334.

Olson, A. R. See Morton, A. A. Olson, C., transmissible lymphoid tumour of chicken, III, 1028.

Oslon, L. C., and DeTurk, E. E., microdetermination of boron by means of quinalizarin and a photo-electric colorimeter, I, 219.
Olson, L. E. See Cornog, J.
Olson, M. B. See Hunscher, H. A.

Olson, T. M., bloat in dairy cattle, III, 1014

Olson, IV. H. See Necheles, H.

Olszycka, L., antagonism between strychnine and ethanol and ethyIbutylbarbituric acid in rat, III, 915. Partition of alcohol between different parts of brain in rats, III, 1053. Distribution of alcohol in nervous system of rat under influence of alcohol and ethylbutylbarbituric acid, III, 1053.

See also Lévy, J. O'Meara, R. A. Q., C. diphtheriæ and composition of its toxin in relation to severity of diphtheria, III, 141. Diphtheria toxin, III, 473.

Omori, S. See Sakurai, Y.

Oncly, J. L., electric moments and relaxation times of protein molecules, I, 83. See also Cohn, E. J., Ferry, J. D., and Green, D. E.

O'Neal, R. D.,  $\beta$ -ray energy of <sup>3</sup>H, I, 440. and Goldhaber, M., capture cross-section for C neutrons, I, 94.

o'Neill, H. B. See Volini, L. F.
o'Neill, J. See Garnes, W. H.
o'Neill, J. F. See Tocantins, L. M.
Oneto, J. F., and Way, E. L., sulphophenylarsinic acids and their derivatives.
IV. Derivatives of p-sulphonamidophenylarsinic acid, II, 178.

Ongley, M., what do "traces of oil" indicate? I, 92.

Onischtschenko, A. S. See Feofilaktov,

Ono, N., artificially deformed Chinese foot, 111, 413.

Ono, T. See Kitamura, R.

Onosovskaja, A. A., "Bolshaya Korta" meteorite, I. 181.
Opie, J. W. See Smith, L. I.

Oppel, V. I., enzymic cleavage of muscle-proteins. II. Viscosity of products of peptic digestion of myosin, III, 886.

Oppenheimer, A., [radiological study of] ileocæcal region, III, 105. Gas in bowels,

Oppenheimer, E. H., lowering of blooduric acid [by uricase], III, 730.

Oppenheimer, J. M., anatomical relationships of abnormally located Mauthner's cells in Fundulus embryos, III, 485.

Oppenheimer, J. R., spin of the mesotron, I, 236. Selection rules in β-decay, I, 317.

and Schwinger, J., interaction of mesotrons and nuclei, I, 396.

Oppenheimer, M. J., and McCravey, A., pulmonary circulation time in man at low body temperatures, III, 652.

and Spiegel, E. A., acquisition of conditioned reactions to angular acceleration after cortical lesions, III, 664.

Opper, L., effect of renal damage on toxicity of hypervitaminosis D in rats, III, 895.

Oprisiu, C. See Janeu, A. Opsahl, J. C. See Arnow, L. E. Ora, S., hydrolysis of dipeptides by carcinoma sera, III, 453.

Orbeli, M. Sec Polesitzki, A. Orchard, W. M. Sec Chute, W. J.

Orcutt, (Miss) R. M., and Bogert, M. T., scianthrene; synthesis of 7-methyl-1isopropylphenanthrene, II, 91.

Ordal, E. J., and Halvorson, H. O. hydrogen production from sugars and formic acid by normal and variant strains of Escherichia coli, III, 1067.

Ordratschek, K., influence of growthstimulating substances on development of mixotropic algae, III, 816. Ordstrand, H. S. van. See under Van

Ordstrand, H. S.

Orechovitsch, V. N., alterations in animal tissue-proteins in course of development of malignant tumours, III, 682.

and Sokolova, T. P., resistance of regenerating amphibian tissue to enzymic hydrolysis, III, 367.

O'Reilly, H. L. See Boyle, P. J. Orékhov, A. P. See Junusov, S., Konovalova, R. A., and Proskurnina, N. F. Orem, H. P. See Lecher, H. Z.

Oremland, B. H. See Wiener, A. S.
Orenstein, L. L., Rosenbaum, I. J., and
Schilder, P., application of metrazol convulsions in schizophrenia, III, 860.

Orent-Keiles, E., and McCollum, E. V., potassium in animal nutrition, III, 891.

Orgain, E. S., Martin, J. M., and Anderson, H. I. G., electrocardiographic alterations in rheumatic fever in children, III, 841.

Orias, O. See Maldonado Allende, I. Orlemann, E. F. See Kolthoff, I. M.

Ormont, B., formation and stability of the halogen and cyanogen derivatives of carbonyls and complex earboxycyanides. II., I, 125.

Orosco, E., thermal balance, I, 224. Orowan, E., origin and spacing of slip bands, I, 198.

Orr, B. A. See Bieter, R. N.

Orr, J. B., trends in nutrition, III, 370.

Orr, J. H. See Reed, G. B. Orr, J. W., and Stickland, L. H., metabolism of rat liver during carcinogenesis by butter-yellow, III, 589.

Orr, L. See Bauman, L.
Orr, M. D. See Moloney, P. J.
Orr, W. F., jun., and Moore, D. II., identity of prothrombin, III, 726.
Orr, W. J. C., factors determining electro-

lytic dissociation. II. Free energies of dissociation of salt molecules in aqueous solution, I, 84.

Orr-Ewing, J. See Chain, E.

Orris, II. See Jacobs, L.,

Orten, J. M., and Devlin, H. B., effect of sodium chloride on glucose tolerance of diabetic rat, III, 123.

See also Sayers, G.

Osawa, Y., and Nagai, I., chronaxie in surgery, III, 498.

Osborn, E. F., and Schaifer, J. F., ternary system pseudowollastonite-akermanitegchlenite, I, 488.

Osborne, D. E. See Denstedt, O. F. Osborne, E. D. See Jordon, J. W.

Osborne, S. L., Grodius, F. S., Goldman, L., and Ivy, A. C., effect of hyperpyrexia on secretion and flow of bile, ÌĬI, 769.

See also Hibbs, D. K.Oseledko, K. N. See Tschescheva, Z.

Oser, B. L. See Parker, A. E.
Osetrova, E. D. See Tschelincev, G. V.
Osgood, E. E., effects of irradiation on leukæmic cells in marrow cultures, III,

and Brownlee, I. E., chemotherapy of staphylococcal infections, III. 461.

Joski, J., and Brownlee, I. E., superiority of neoarsphenamine and sulphathiazole in therapy of Staphylococcus aureus infections in marrow cultures, III, 606.

Osgood, H. S. See McCay, C. M.

Osgood, R. B., chronic rheumatism, III, 133.

O'Shaughnessy, & M. T., and Rodebush, W. H., ultra-violet absorption spectra of organic molecules; dependence on restricted rotation and resonance, I, 192. Osinskaja, V. O. Sec Feinschmidt, O. I.

Osio, A., peripheral action of antipyrine on blood vessels, III, 128.

Ossinowsky, N. I., reactivation of isolated child's heart, III, 77. Cardiovascular system at puberty, III, 336.

Osswald, F., local anæsthesia, III, 464.

Ostapenko, L. See Strogonov, B. P.
Osterberg, A. E. See Alvarez, W. C.,
Comfort, M. W., Cragg, R. W., Harper,
S. B., Kearney, R. W., and Vanzart,

Osterhout, W. J. V., chemical restoration in Nitella. , IV. Effects of guanidine, III, 59. Effects of hexylresorcinol on Valonia, III, 386.

Osterhout, W. J. V., and Hill, S. E., experimental production of double peaks in Chara action curves and their relation to movement of potassium, III, 59.

Ostwald, Wo., coagulating effect of electrolytes on hydrophobic colloids, 1, 298.

O'Sullivan, J. F., and Moore, H., Gee-Thaysen disease (non-tropical idiopathic steatorrhœa in adults), III, 445.

Oswin, C. R. See Andrews, K. W.

Otani, T., action potential of nerve in refractory phase, III, 853.

Otenasek, F., and Lee, F. C., thrombocytopen, III, 727.

Otis, L. See Smith, M. C.
Otomo, Y., manner in which glycogen is formed in liver from different carbohydrates, III, 882.

Otsuki, C. See Blicke, F. F. Ott, A., blood volume and bone marrow function in heart failure, III, 77.

Ott, C. J. See Tamele, M. W.
Ott, L. H. See Schultz, H. L.
Ottamanovskaja, O. M: See Boguslav-

skaja, B. E. Otto, C. E., distinguishing individual quantitative filter-papers, I, 132. Sec also Otto, E. B.

Otto, E. B., and Otto, C. E., titan-yellow qualitative test for magnesium, I, 127.

Otto, G. F., and Brand, T. von, calcification in Capillaria hepatica infection, III, 1082.

Hewitt, R., and Strahan, D. E., zine sulphate levitation method of fæcal examination for protozoan cysts and hookworm eggs, III, 472. See also Brown, H. W.

Otto, H., and Hasemeyer, H. W., diphtheria with special consideration of three types of diphtheria bacilli, III, 391.

Otto,  $\hat{W}$ . H., and Bennett, W. H., production of ozone in silent electric discharge, I, 121.

Otuka, M. See Hamamura, Y.

Oudet, P., antithyrotropic action of serum of rabbits treated with muscle extract, III, 266.

Oughterson, A. W. See Hirschfeld, J. W. Outhouse, E. L., and Forbes, J. C., microdetermination of tissue-lipins, III, 63. Sec also Forbes, J. C.

Outhouse, J. See Breiter, H., Kempster, E., and Mills, R.

Ouyang, G., acute bacillary dysentery in infants and children, III, 475. Sec also Wong, S. C.

Ovakimian, G. See Kuna, M. Overbeck, W. P., and Löf, J. L. C., lowcapacity coupler for cathode-ray oscilloscope, I, 179.

Overbeek, J. van, auxin production in isolated roots growing in vitro, III, 540. Auxin in marine plants. II., III,

Overholser, M. D. See Wells, L. J., and Zalesky, M.

Overman, O. R. Sec Menefee, S. G.

Overstreet, R., Ruben, S., and Broyer, T. C., absorption of hydrogen carbonate ion by barley plants as indicated by radio-active carbon, III, 233.

Ovtscharenko, F. D., preparation of periodical sediments by electrolytic

coagulation of a gelatin sol containing cadmium sulphide, I, 263.

Owada, K., changes in plasma proteins, carbohydrates, and gases in conserved

blood, III, 418. Owen, C. A. See Warner, E. D.

Owen, E. A., and Roberts, E. A. O'D., goldcadmium alloys rich in gold, I, 9. and Sully, A. H., migration of atoms in

iron-nickel alloys, I, 204. Owen, E. C., Smith, J. A. B., and Wright, N. C., chemical substitutes for dietary protein, III, 890.

Owen, L. N., Peat, S., and Jones, W. J. G., furanose and pyranose derivatives of glueurone, II, 240.

See also Haworth, W. N.

Owen, S. E., and Cutler, M., sex hormones and prostatic pathology, III, 1010. and Williams, A. E., irradiation and

hereditary mammary cancer, III, 113. Owens, C. A., investigation for male

sterility, III, 875.

Owens, L. B., Rockwern, S. S., and Brown, E. G., vitamin-B in diabetes mellitus, III, 24.

Oxford, A. E., Lampen, J. O., and Peterson, W. H., growth factor and other nutritional requirements of acctone butanol organism, Cl. acetobutylicum, 111, 305.

and Raistrick, H., biochemistry of microorganisms. LXVI. Penicilliopsin, the colouring matter of Penicilliopsis clavariæformis, Solms-Laubach, II, 49.

Oyana, F., culture of tubercle bacilli in gastric juice, III, 806.

## Ρ.

Pabst, M. R., Boatner, C. H., and Efron, B. G., significance of reactions to intracutaneous tests performed with extracts of purified house dust, III, 813. Statistical methods for analysis of comparative skin reactions, III, 814. Analysis of comparative skin reactions by means of  $\chi^2$ -test, III, 814.

See also Boatner, C. H., and Efron, B. G. Pace, N., pigments of marine diatom Nitzschia closterium, III, 924.

Pache, H. D., hereditary erythroblastosis in newborn, III, 416.

Paehmann, D. J., oral and intravenous glucose tolerance tests in acute (catarrhal) hepatitis, III, 364.

Pack, G. T., and MeNeer, G., metastatic cancer of stomach, III, 591.

Packchanian, A., experimental production of agglutinins for Trypanosoma cruzi, III, 924.

and Sweet, L. K., case of rat-bite fever,

Packendorf, K., and Matschus, F. F., reactions of ethylene oxide; with substituted malonic esters; with ethyl acetoacetate, II, 240.

Packer, A. See Gellhorn, E.

Packer, A. D., experimental investigation of visual system in phalanger, Trichosurus

vulpecula, III, 661.

Pacsu, E., and Mullen, J. W., jun., resolution of synthetic alanine, II, 36. Separation of starch into its two constituents, II, 186. Preparation of derivatives of starch, II, 243.

and Trister, S. M., isopropylidene derivative of the mercaptals of monosaccharides. VI. Crystalline 2-methyld-mannose and its α-methylgluco-furanoside, dimethyl acetal, and dibenzyl mercaptal, II, 186.

Paddison, O. H., jun. See Meissner, H. P. Paddock, (Miss) E. See Pickett, (Miss) L. W.

Paddock, F. K., specific gravity and protein content in human scrous effusions, III, 968.

Paddock, R., test for pregnancy, III, 874. Pader, M. See Wagreich, H.

Paes, E., and Pires Soares, J. M., effect of adrenaline-acctylcholine complex on heart culture of chick embryo, III, 247.

Paff, G. H., detoxification of digitalis in embryonic chick heart, III, 127.

See also De Graff, A. C.
Page, II. M., ideal vaccination technique, III, 809.

Page, I. H., activating effect of normal and hypertensive plasma on intestinal segments treated with renin, III, 173. Chemical changes in atheromatosis, III, 978.

See also Corcoran, A. C., Fouts, P. J., and Kohlstaedt, K. G.

Page, R. C., and Russell, H. K., prothrombin estimation using Russell viper venom, III, 726.

Russell, H. K., and Rosenthal, R. L., effect of oxalic acid intravenously on blood-coagulation time in three hæmophiliacs, III, 76.

See also Heffner, R. R., and Russell, H. K.

Pagel, W., effect of seal oil and glycerol broth treatment on antituberculous vaccination, III, 630.

Paggitt, F., adjustable mercury-filled metal thermo-regulator, I, 129.

Pai, H. C. See Char, G. Y., Liu, S. H., and Wu, Y. K.

Paine, J. R. See Spink, W. W. Painter, B. T. See Rahn, H.

Painter, E. E., total body-water in dog,

Painter, E. P., and Franke, K. W., relationship of selenium to sulphur and

nitrogen deposition in cereals, III, 59. Franke, K. W., and Gortner, R. A., organic selenium compounds; their decomposition in alkaline solutions and their properties related to behaviour of selenium compounds in cereals, II, 28.

Painter, T. S., animal chromosomes, III, 67.

Pajuchina, A. See Godney, I. Pak, Y. L., bacteria of Korean liquor barm, III, 51.

Pakenham-Walsh, R., and Rennie, A. T., sulphathiazole in malaria, III, 214.

Pakkala, M. H. See Hultgren, R. Palache, C., cuprobismutite, I, 135.

Palacios, R. See Casals, J.

Paleev, A. M., formation of lignin, III, 714.

Paletta, F. X. See Cowdry, E. V.

Palevitseh, M. See Doljanski, L. Paley, K. See Ralli, E. P., and Sherry, S. Palilova, J. K. See Kniaginitschev, M. I. Palkin, S. See Joshel, L. M.

Palladin, A. V., and Chaikina, B. I. catalase activity in trained and fatigued muscles on acid and alkaline diets, III, 703.

Palladina, L. I., and Dubovtzeva, L. A., effect of rhythmic and tetanic contractions on lactic acid and glycogen content and blood supply of pectoral muscles of pigeons, III, 738.

Pallister, R. A., ataxic paraplegia [? pellagra] amongst Chinese in Malaya, III, 210.

Palmer, A., excretion of free estrogen during uterine bleeding, III, 194.

Palmer, A. H., and Levy, M., chick embryo. I. Dipoptidase of chick embryo extracts. II. Weight, nitrogen, and dipoptidase accumulation, III, 156. Distribution of dipeptidase in cephalic region of three-day chick embryos, III, 413. See also Levy, M.

Palmer, C. E. See Furcolow, M. I., and Klein, II.

Palmer, G. See Bates, O. K.
Palmer, G. D. See Schaeffer, H. F.
Palmer, H. W., recovery from pneumococcal meningitis [with sulphapyridine], III, 527.

Palmer, 1., potassium cyanide as stabiliser for cevitamic acid in blood, III, 839.

Palmer, J. W., and Gerlough, T. D., preparation of antigenic substances from typhoid bacillus, III, 54.

See also Gerlough, T. D.
Palmer, K. J., and Schmitt, F. O., X-ray diffraction studies of lipin emulsions. III, 740.

Schmitt, F. O., and Chargaff, E., X-ray diffraction studies of lipin-protein complexes, III, 853.

See also Bear, R. S., and Schmitt, F. O. Palmer, L. S., and Forrester, G. R., reflexion method of measuring optical and electrical constants at ultra-high radio frequencies, I, 348.

and Tarassuk, N. P., fat globule adsorption membrane. II. Surface-active materials reducing curd tension and membrane preventing clotting by rennet, III, 468.

Palmer, M., pneumococcus peritonitis in nephrotic and non-nephrotic children [use of drugs], III, 459.

Palmer, R. B., dermatitis from nail lacquer, III, 1055.

Palmer, R. C.See Cassie, A. B. D. Palmer, W. C. See Klein, A. J.

Palmer, W. L., Kirsner, J. B., and Nutter, P. B., spontaneous variations in gastric secretion in response to histamine stimulation, III, 199.

Palmerton, E. S. Sec Astrowe, P. S.

Paltauf, R. M., crymotherapy; biopsies and deaths, 111, 531.

Pamfilov, A. V., and Ivantscheva, E. G., titanium. XVI. Transition of anatase into rutile structure, I, 92.

Sehieher, A. G., and Schicher, M. G., changes in viscosity of cellulose nitrate sols. IV. Gelation of sols, I, 13.

and Schicher, M. G., changes in viscosity of cellulose nitrate sols. V. Scheme of gelation, I, 13. Pamir, H. N. See Gysin, M.

Pan, C. C. See Mayeda, S.

Pan, S. T. See Bitter, F.

P'an, S. Y., distribution of sulphapyridine and its sodium salt in ocular fluids and tissues after local application, III, 903.

Sec also Anderson, H. H., Chang, H. C., and Luo, T. H.

Pan, T. L. See Tseou, H. F. Pan, Y. D. See Kolthoff, I. M. Pandalai, N. G., biochemical activity of Pscudomonas pyocyanea, III, 930. Pandya, K. C. See Ittyerah, P. I. Paneth, F. A. See Edgar, J. L.

Panevkin, K., excitation of atoms in a rare gas discharge, I, 140.

Pang, K. H., enhancing action of egg-yolk on virulence of meningococcus for mice, III, 392.

Pangborn, M. C., purification of lecithin, III, 368.

Panikkar, N. K. See Lowndes, A. G.

Panimon, F., Horwitt, M. K., and Gerard. R. W., iron-induced oxidations in brain and other tissnes, III, 377. o-Phenanthroline as accelerator of brain tissue oxygen consumption, III, 378.

Panizzon, L. See Miescher, K. Pankhurst, G. K. A., foam formation and

foam stability, I, 465.

Pankhurst, R. C., band spectrum of sodium hydride, I, 290.

Pannekoek-Westenburg, S. J. E., and Veen, A. G. van, vitamin- $B_1$  content of blood in health and disease, III, 284.

Pannier, R., invasion of turtle ventricle by excitatory wave, III, 170.

Panse, T. B., and Paranjpe, A. S., alkaloidal substance from Carica papaya seeds, II, 381.

See also Limaye, D. B. Pantin, C. F. A. See Fox, D. L. Pao, C. S. See Ch'en, S. Y.

Papachristoll, E. Sec Choremis, K. Papanicolaou, G. N., staining vaginal smears, III, 676.

Papayanopulos, G., thyroid hormone and blood diastase, III, 867.

Pape, N. R. See Fuller, C. S.
Papez, T. W., and Stotler, W. A., connexions of red nucleus, III, 342.

Pappenheimer, A. M., prevention of nutritional myopathy of ducklings by a-tocopherol, III, 599.

Pappenheimer, A. M., jun. Seo Hottle, G. A., and Petermann, M. L.

Pappenheimer, J. R., vasoconstrictor nerves, oxygen consumption, and per-fused muscles (dog), III, 250. Oxygen consumption in isolated perfused hindlimb of dog, III, 424.

See also Eggleton, M. G. Papps, J. See Drew, C. R.

Parade, G. W., and Franke, II., carbon monoxide poisoning of heart, III,

Paranjpe, A. S. See Panse, T. B.

Paranjpe, G. R., and Deshpande, P. Y., dipole moment and molecular structure of higher fatty acids, I, 99.

and Lajami, S. S., application of Mie's electromagnetic theory to measurement of size of small drops, I, 96.

Paraschivesco, M., absence of virulicide activity from serum of animals resistant to poliomyelitis, III, 934.

Parehomenko, R. G., iodometric determination of ferric iron in presence of organic material, I, 388.

Parfenova, E. A. See Miljutin, G.

Pariser, H., infectiousness of vaginal secretions and menstrual blood of syphilitic

women, III, 310.
Parish, H. J., and Maclean, I. H., active immunisation, III, 632.

See also Marvell, D. M.

Park, E. A., pathology of rickets, III, 522.

Parke, H. C. See Blicke, F. F.
Parker, A. E., and Oser, B. L., photoelectric photometer for vitamin-A determination, III, 595.

Parker, C. S., autonomic functions during hypoglycæmic treatment of schizophrenics, III, 665.

Parker, E. See Kotz, J.
Parker, F. P. See Blackford, L. M., and Bruce, A. H.

Parker, G. H., action of nervous system, III, 176. Melanophore bands and areas due to nervo cutting, in relation to protracted activity of nerves, III, 658.

and Rosenblueth, A., electrical stimulation of concentrating (adrenergic) and dispersing (cholinergic) nerve fibres of melanophores in catfish, III, 745.
Parker, J. E., avian semen collector, III,

Parker, M. W., and Borthwick, H. A., effect of variation in temperature during photoperiodic induction on initiation of flower primordia in Biloxi soya bean, III, 401. Effect of photoperiod on development and metabolism of Biloxi soya bean, III, 401. See also Borthwick, H. A.

Parker, R. L., pulmonary emphysema; its relation to heart and pulmonary arterial

system, III, 425.

Parker, W. E., and McFarlane, W. D., modification of Emmerie's iron-dipyridyl method for determining tocopherol content of oils, III, 377.

Parker, W. L. See Phillips, L. W. Parkes, A. S., and Hammond, J., induction of fertility by injection of gonadotropic preparations, III, 97. Sce also Zuekerman, S.

Parkhurst, H. J., toilet soaps, soap substitutes, and hard water, III, 697.

Parkin, E. A., symbiosis in larval Siricidæ (Hymenoptera), III, 450.

Parkinson, J., effort syndrome in soldiers, III, 653.

Parks, A. E., and Shanks, G., experimental lesions in kidneys of rabbits, III, 515.

Parks, G. S., West, T. J., and Moore, G. E., thermal data on organic compounds. XXI. Heat capacity, entropy, and free-energy data for four methylnonanes, I, 249.

See also Greene, E. S.

Parr, L. W., coliform intermediates in human fæces, III, 51.

Parrack, II. O., excitability of excised and circulated frog's sciatic nerve, III,

Parris, G. K., comparison of rates of apparent photosynthesis and respiration of diseased and healthy bean leaflets, III, 817.

Parschin, A. N., extractive nitrogenous bases of muscle, and their biological significance. X. Determination of carnosine and anserine, III, 602.

and Bognibov, V. A., extractive nitrogenous bases of muscle, and their biological significance. IX. Decomposition of carnosine in animal organīsm, III, 602.

Parsell, L. A., acute mastoiditis in children, III, 1001.

Parsons, H. T. See Strong, F. M. Parsons, J. C. See Slaughter, D.

Parsons, L. D., and Warren, F. L., cellular changes in spleen and lymph glands in mice used for carcinogenic and related experiments, with special reference to giant cells of splcen, III, 589.

Parsons, R. J., staining of Negri bodies in formalin- and alcohol-fixed tissues, III,

Partington, J. R., Paracelsus (1493-1541), · I, 487. See also Hart, A. B.

Parton, H. N. See Harris, A. C.

Partridge, E. P., Hicks, V., and Smith, G. W., thermal, microscopic, and X-ray study of system Nal'O3-Na4P2O7, I,

Partridge, R. C. See MacLean, D. L. Partridge, S. M., and Klieneberger, E., isolation of cholesterol from oily droplets found in association with L 1 organism separated from Streptobacillus monili-

formis, III, 393.
Pascal, J. I., fundamental differences between crossed cylinder and line chart astigmatic tests, III, 10. Applications

of dynamic retinoscopy, III, 568.

Paschal, G. W., jun. See Lemmon, W. T.

Paschkis, K. E., androgenic action of deoxycorticosterone acetate? III, 871. See also Shay, H.

Paschoud, II., prevention of "post-operative illness" of Leriche by infra-red irradiation during operation and early movement, III, 733.

Pask, E. A., modified flow-meters for anæsthetic gases, III, 294. Oxygen capacity of blood after hexobarbitone, 111, 614.

See also Macintosh, R. R.

Pasqualini, R. Q., and Celli, C. E., dental fluorosis in Pampa (Argentina), III,

and Etala, E., determination of reabsorption capacity of renal tubules by means of posterior pituitary extracts, 111, 201.

Pasquini, D., penetration of dyes in Vicia faba, III, 149.

Pass, H. D., sulphapyridine in pneumococcal meningitis, III, 906.

Pass, I. J. See Watson, C. J.

Passino, II. J. See Simons, J. H.
Pasternak, M. N., disturbed acid-base balance in cancer, III, 889. See also Kavetzki, R. E.

Pastorius, G. J. See McLain, P. L. Pasupati, V. See Anantakrishnan, S. V.

Patankar, V.S. See Tawde, N. R.
Patch, E. M., cataracts in Amblystoma tigrinum larvæ fed experimental diets, III, 569.

Patch, F. S., Rhea, L. J., and Codnere, J. T.hypertension in girl of 12, associated with unilateral chronic atrophic pyelonephritis, treated by nephrectomy, III,  $25\bar{0}.$ 

Patek, A.J., and Haig, C., effect of administration of thyroid extract and a-dinitrophenol on dark adaptation, III, 434.

Paterson, C., causation of intimal hæmorrhages and precipitation of coronary thrombi, III, 334.

Paterson, J. H. See Maizels, M.

Paterson, J. S., antigenic structure of organisms of genus Listerella, III, 142. Experimental infection of chick embryo with organisms of genus Listerella, III,

Paterson, R. G., magnetic susceptibilities of rocks in situ, I, 181.

Paterson, S., ignition of inflammable gases by hot moving particles. II., I, 50.

Patey, D. H., and Robertson, J. D., compression treatment of crush injuries of limbs, III, 976.

Patil, B. V. See Hirwe, N. W.

Patkay, K., Visscher-Bowman pregnancy test, III, 100.

Patras, M. C. See Boyd, T. E.

Patrick, H. See Hogan, A. G.

Patsouri, E., action of quinine on reticuloendothelial system, III, 327.

Pattee, C. J., Venning, E. H., and Browne, J. S. L., effect of estrogens on pregnanediol output during menstrual cycle, III, 101.

See also Hamblen, E. C.

Patterson, A. L., crystal lattice models based on close packing of spheres, I, 325. Patterson, J. E., and McHenry, E. W., errors in calculation of nutritive value of food intake. I., Ill, 1031. Patterson, L. A. See Marvel, C. S.

Patterson, M. See Appelbaum, M.
Patterson, R. F., West, K. A., Lovell,
E. L., Hawkins, W. L., and Hibbert, H., lignin and related compounds. Solvent fractionation of maple ethanollignin, II, 371.

Patterson, T. L. See Scantlebury, R. E. Patton, E. W., effect of vitamins on infection and inflammation, III, 775.

and Corlette, M. B., acute syphilitic nephrosis in adults, III, 1020.

Patton, M. Sec Donelson, E. G. Patty, F. A. See Schrenk, H. H.
Paul, E. I. See Stecker, J. F.
Paul, F. W., and Polster, H. D., extreme

ultra-violet spectra of Ne IV, V, VI, I, 233.

Paul, G. W. See McNaught, K. J. Paul, J. T., Brown, W. O., and Limarzi, L. R., effect of colchicine on chronic myeloid leukæmia, III, 728.

Paul, W. D., and Kemp, C. R., variations in concentration of electrolytes of blood serum during induced hyperpyrexia, III, 558.

Pauli, W., connexion between spin and statistics, I, 25.

and Sternbach, L., electrochemistry of agar sol, I, 334.

Pauling, L., theory of structure and process of formation of antibodies, III, 146.

Campbell, D. H., and Pressman, D., serological reactions with simple substances containing two or more haptenic groups, III, 478.

and Laubengayer, A. W., alkyls of third-group elements. II. Electron diffrac-·tion study of indium trimethyl, I, 200.

See also Moore, W. J., jun.

Paulson, M., chronic ulcerative colitis, III, 1018.

Pavlenko, O. N. See Nilov, V. I.

Pavliutschenko, M. M., oxidation of hydrogen by atomic oxygen, I, 471. Oxidation of adsorbed carbon monoxide by atomic oxygen, I, 480.

Pavlov, D. S., nature of spectra, I, 237. Spectroscopic study of carbonyl sulphide flame, I, 473.

See also Emanuel, N. M.

Pavlov, I. P., lectures on conditioned reflexes. Vol. II. Conditioned reflexes

and psychiatry, III, 1088.

Pavlova, V. A. See Vilenski, V. A.

Pavlovetz, M. T. See Zuitin, A. I.

Payne, B. F., coloboma of optic nerve in human embryo, III, 504.

Payne, F. K. See Payne, G. C. Payne, G. C., and Payne, F. K., iron and anthelmintics in treatment of hookworm anæmia, III, 382.

Payne, J. H., and Ballard, S. S., incidence of hydrogen sulphide at Kilauea solfatara preceding 1940 Mauna Loa volcanic activity, I, 20. and Lemon, G. F., jun., oxidation of

aldehydes with hydrogen peroxide, II,

119.

See also Foster, L. M. Pazenko, Z. N. Sec Pelkis, P. S. Peabody, IV. A. See Fisher, R. S.

Peacock, G. See Emmett, A. D. Peacock, M. A., and Dadson, A. S., rammelsbergite and pararammelsbergite: distinct forms of nickel diarsenide, I, 135.

Peacock, P. R., cholecystostomy fistulæ suitable for small laboratory animals, III,

Pearce, A. A., "iodide oxidase"; mechanism of iodide oxidation by Aspergillus,

Pearce, D. W. See Hanson, R. A., Sprauer, J. W., and Walters, G. C.

Pearce, J. A. See Munro, L. A. Pearce, S. J. See Schrenk, H. H.

Pearl, R. M., spessartite in pegmatite at Mount Antero, Colorado,

Turquoise deposits of Colorado, I, 489.

Pearlman, H. See Amdur, I.

Pearlman, S. F. See Gordon, M. B.

Pearlman, W. H., isolation of actioallocholan-3- $(\beta)$ -ol-17-one (isoandrosterone) from normal and pathological human urines, III, 269. See also Pincus, G.

Pearman, R. O. See Hargraves, M. M. Pearsall, W. H., and Bengry, R. P., growth of Chlorella in relation to light intensity, III, 58.

Pearse, R. W. B. See Harris, L. Pearson, A. A., development of nervus

terminalis in man, III, 952.
Pearson, B., Rice, M. M., and Dickens, K. LaV., primary systemic amyloidosis, III, 1040.

Pearson, D. E. See Marvel, C. S.

Pearson, P. B., pantothenic acid content of blood of mammalia, III, 839.

and Winegar, A. H., effect of amount ingested on excretion of nicotinic acid by rabbits, III, 519.

Winegar, A. H., and Schmidt, H., metabolism of nicotinic acid in sheep, III, 285.

See also Snell, E. S.

Pease, D. O., hydrostatic pressure effects on protoplasmic streaming in plasmodium, III, 242. Influence of centrifugal force on bilateral determination spirally-cleaving egg of Urechis, III, 954. Pease, R. N. Sec Day, R. A., jun.

Peat, S. See Owen, L. N.

Pecher, C., long-lived isotope of yttrium, I,

See also Erf, L. A., and Helmholz, A. C.

Peck, D. See Cope, A. C.
Peck, R. L., and Anderson, Rudolph J.,
lipins of tubercle bacilli. LXIII. ĹXIII. Fatty acids in phosphatide prepared from cell residues from tuberculin. LXIV. Phleimycolic acid, II, 300; 111, 538.

See also Anderson, Rudolph J.

Peck, S. M., Chargin, L., and Sobotka, H., keratosis follicularis (Darier's disease), a vitamin-A deficiency disease, III, 594.

and Glick, A., trichophytin, III, 805. Peck, W. S. See Smyth, C. J. Pecora, L. J. See Talbott, J. H.

Peczenik, O., Popper, L., and Schmidt, G. antagonism between thyroid posterior pituitary and its relation to autonomic nervous system, III, 1008.

Peddie, W., colour vision and chromaticity scales, III, 260. Magnetisation in crystalline media, I, 404.

Pedelty, W. H. See Hilditch, T. P. Pedersen, S. See Power, F. H. Pedlow, G. W., jun. See Whitmore, F. C.

Peers, J. H., response of central nervous system to application of carcinogenic hydrocarbons; methylcholanthrene, III,

Peet. M. M. See Foa. P. P.

Peierls, R., Bohr theory of nuclear reactions, I, 146.

Peiper, A., disturbances of suckling, III,

Pelezar, M. J., jun., and Porter, J. R., micro-biological assay of pantothenic acid by means of Proteus morganii, III,

Pelkis, D. S. See Tschovnik, N. G.

Pelkis, P. S., and Pazenko, Z. N., synthesis of monohydric unsaturated alcohols containing two or three double linkings,

Peller, S., metachronous multiple malignancies in cancer, III, 889.

and Stephenson, C. S., cancer in the mentally ill, III, 281.

Pelner, L., recovery of severe case of Vincent's angina after neoprontosil treatment, III, 907.

Pelouze, P. S. See Hazen, H. H. Peluso, J. V. See Rosenblatt, M.

Pemberton, J., test for vitamin-C reserves, III, 120.

Pemberton, J. de J., malignant lesions of thyroid gland, III, 435.

See also Nygaard, K. K. Pemberton, R., and Scull, C. W., nutritional aspects of treatment of arthritis, III, 370.

See also Scull, C. W., and Spackman, E. W.

Penczek, E. S. See Dahlberg, A. C. Pendergrass, E. P. See Heublein, G. W. Pendleton, G. F., posterior pituitary solution in labour, III, 267.

Penfield, W., and McNaughton, F., dural headache and innervation of dura mater, III, 257.

Penfold, A. R. Sec Gillam, A. E.

Penfold, W. J., Tolhurst, J. C., and Wilson, D., activo immunisation against gas gangrene and tetanus, III, 395.

Penman, H. L. See Heath, O. V. S. Pennel, V. See Martin, L.

Penner, A. See Klemperer, P.

Penner, D. I. Seo Arkadiev, V. K. Penning, F. M. See Druyvesteyn, M. J. Pennington, E. S., clinical sensitivity to

air-borne moulds, III, 1064. Pennington, L. A., effects of cortical

destruction on responses to tones, III, 347.

Pennington, W. See Jenkin, B. M. Penrod, K. E. See Smith, Erma. Pentimalli, F., nature of chicken leukæmia

virus, III, 280. Transplantable lymphosarcoma of chicken, III, 280.

Peoples, S. A., determining solubility of gases and vapours in liquids by means of Van Slyke-Neill apparatus, III,

Pepe, R. O., action of trimethylgallazide on naphthols, II, 133.

Pepinsky, R., crystal structure of lithium hydroxide monohydrate, I, 326.

Pepper, D. S., and Ham, G. C., sulphathiazole treatment in respiratory infections, III, 293.

See also Sunderman, F. W.

Percival, E. G. V., and Soutar, T. H., carbohydrate sulphuric esters. I. Glucose and galactose sulphates, II, 34: See also Heddle, W. J., Muir,  $\hat{J}$ .  $\hat{R}$ ., and

Mullan, J.

Percival, G. II., war and skin disease, III,

**Percival,**  $J. \cdot O.$ , determination of ferric and ferrous iron, I, 176.

Pereira, R. S., photometric determination of iron, III, 316.

Perel, L. See Binet, L.

Pereyra Käfer, J., ketogenic diet in treatment of epilepsy, III, 890.

Perfilov, N. A., mv/E relation for products of uranium fission, I, 143.

Perilstein, W. L. See Lough, S. A. Perkins, A. E. See Monroe, C. F.

Perkinson, J. D., jun. See Sealock, R. R.

Perlberg, H. J. See Kruger, A. L. Perlman, D. See Levitz, M. Perlman, G. E., combination of proteins and metaphosphoric acid, II, 114. Perlman, H. B., and Willard, J., ear in

experimental vitamin-A deficiency, III, **75**0.

Perlman, I., Chaikoff, I. L., and Morton, M. E., radioactive iodine as indicator of metabolism of iodine. I. Turnover of iodine in tissues of normal animal, with particular reference to thyroid, II. Rates of formation of thyroxine and di-iodotyrosine by intact normal thyroid gland, III, 604.

See also Friedlander, H. D., and Morton, M. E.

Perlman, L., and Fox, T. A., hamorrhagic diatheses, III, 967.

See also Meyer, K. A.

Perlman, M. L., and Rollefson, G. K., vapour density of iodine at high temperatures, I, 249.

Perlmutter, M. See Kirkham, D.

Perloff, W. H., and Kurzrok, R., production of uterine tumours in guinea-pig by local implantation of œstrogen pellets, III, 761.

Perlzweig, W. A., Levy, E. D., and Sarett, II. P., nicotinic acid derivatives in human urine and their determination,

Pernokis, E. W., and Freeland, M. R., blood chemistry in leukæmias, III, 728. Blood chemistry determinations in pernicious anæmia, III, 828.

Perrault, A. See Shear, M. J.

Perrin, S. R. See Beinhauer, L. G. Perrottet, E., Taub, W., and Briner, E., comparative energy states of azulene and naphthalene nuclei, I, 48. See also Briner, E., and Naves, Y. R.

Perry, C. B., action of salicylates on development of antibodies following anti-typhoid inoculation, III, 1048. and Taylor, A. L., hypertension following

thrombosis of renal veins, III, 81. Perry, I. H., and Lockhead, M. S., histology

of mouse pituitary, III, 70.

Perry, J. C., antagonistic action of adrenaline on reproductive cycle of English sparrow, Passer domesticus, L., III, 673.

Perry,  $L.\ H.$  Sec Ruben, S. Perry,  $M.\ W.$ , and Armstrong,  $W.\ D.$ , manner of acquisition of fluorine by mature teeth, III, 366.

Perry, S., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. LXI. Mechanism of polymerisation of ethylene oxide, II, 2.

Persike, E. C., jun., involution of thymus alof young albino rat under treatment with testosterone propionate, III, 508. Involution of thymus during pregnancy in young mice, III, 573.

Person, E. C., jun. See Müller, O. H. Pertzoff, V. A., molecular refraction of ions of l-aspartic acid, I, 194.

Perucca, E., polarimeter [analyser] with penumbra, I, 90.

Perumova, E. D., Raman effect of chloroprene in polymerisation, I, 447.

Peschau, J. B., jun. Sec Strickler, C. W.,

Peshkin, M. M., immunity to tetanus induced by combined alum-precipitated diphtheria and tetanus toxoids, III, 932,

Petch, N. J. See Lipson, H.

Peter, II., sedatives and alcohol [in relation to their effect, singly or jointly, on the car driver], III, 129.

Petering, H. G., Benne, E. J., and Morgal, P. W., simplification of Petering-Wolman-Hibbard method for determination of chlorophyll and carotene, II, 208.

Petermann, M. L., and Pappenheimer, A. M., jun., ultracentrifugal analysis of

diphtheria proteins, III, 300.

Peters, A. F. See Greenbaum, F. R.

Peters, B., and Richman, C., deuteron disintegration by electrons, I, 317.

Peters, B. A., and Cunningham, R. N., effect of diphtheria toxin on tissue enzymes in vitro, III, 473.

Peters, C. A., and Redmon, B. C., phenolphthalein and methyl-orange, I, 126.

Peters, G. A., sensory nerve cells in dorsal roots of human spinal nerves, III, 341.

Peters, H. C., evidence for fluid circuit theory: rate of chloride accumulation in lower ileum, III, 1017.

Peters, J. P. Seo Riggs, D. S. Peters, J. T., iodosecretory and urcosecretory indices of renal function, III, 514.

Petersen, E., prognostic value of skin temperature during ether narcosis in gynæcological laparotomies, III, 17. Operative procedure on sympathetic nervous system in benign gynæcological diseases, III, 344.

Petersen, G. A., Bonnier-Ullrich syndrome, III, 431.

Petersen, R. See Ellett, A.

Petersen, W. E., Spielman, A., Pomeroy, B. S., and Boyd, W. L., effect of thyroidectomy on sexual behaviour of the bull, III, 570. See also Samuels, L. T.

Petersen, W. F., and Mayne, A., poliomyelitis and climate, III, 232.

See also Berg, M.

Petersen, W. W., embryological classification of congenital umbilical tumours in pig, III, 452.

Petersilge, C. L. See Ford, M. L.

Peterson, J. M., ascorbic acid and resistance to low oxygen tension, III, 848.

Peterson, O. L., Strauss, E., Taylor, F. H., and Finland, M., absorption, excretion, and distribution of sulphadiazine (2-sulphanilamidopyrimidine), III, 692. See also Finland, M.

Peterson, R. W., and Walton, J. H., survey of factors affecting autoxidation of

sodium stannite, I, 339.

Peterson, W. H. See Lampen, J. O.,
McIntire, F. C., Oxford, A. E., and Snell, E. E.

Peterson, W. J., determination of carotene, III, 594. See also Aubel, C. E.

Petin, N. N. See Golombik, M. S. Petke, F. E. See Kienle, R. H.

Petrenko, G. I. See Tscherkaschin, E. E. Petrenko-Kritschenko, P. I., periodic law,

and Herschel, V. E., periodicity law, I, 271.

Petrie, A. H. K. See Watson, R. Petrie, G. F., hypertoxic diphtheria, 111, 391.

Petrjanov, J. See Tunitzki, N.

Petrov, A. A., reactions of organic a-oxides with alcohols and compounds containing the carbonyl group, in presence of boron fluoride, II, 52. Conjugated systems. IX. Reactions of  $\beta$ -halogenobutadienes with alkyl hypoiodites, and synthesis of halogenoalkoxyprenes. X. Reaction of bromoprene with hypobromous acid. XI. Reaction of chloroprene with hydrogen bromide; synthesis of γ-chloro-Δβ-butenol ethers. XII. Reaction of a-bromobutadiene with alkyl hypoiodites; synthesis of a-bromo-y-alkoxy-derivatives of divinyl and of y-alkoxyvinylacetylenes, II, 58, 239, 277.

Petrov, A. D., and Azatian, V. D., alkenyl esters of unsaturated monocarboxylic acids of the CnH2n-1 CO2H series, II,

and Roslova, N. A., reaction of magnesium tert .- butyl chloride with propionyl, isobutylacetyl, and benzoyl chloride, II, 60.

Petrov, D., necessary and sufficient number of sections for the construction of univariant curves in ternary and quaternary

systems, I, 416.

Petrov, D. A., application of co-node method to determination of univariant curves for ternary and quaternary cutectic mixtures with mixed crystals, I, 416.

Petrov, S. G., parallel variation in plumage colours of various breeds of domestic

fowl, III, 548.

Petrovitch, A. See Fichter, F. Petrshak, K. A., ranges and energy of uranium fragments arising from nuclear fission under bombardment with fast neutrons, I, 287.

Petrunkin, M. L. See Abuladze, K. C. Petrunkin, V. E. See Kiprianov, A. I. Petrunkina, A. M. See Abuladze, K. C. Pett, L. B., and Lipkind, M. K., Pett

visual test for vitamin-A deficiency, III, 594.

Petterson, H. [with Foeyn, E., Karlik, B., and Rona, E.], thorium-uranium ratio in rocks and in sea, I, 61.

Pettit, D. S. See Bachman, C. Pettit, V. D. See Diggs, L. W.

Pevni, N. I., adsorption and desorption of sulphur trioxide on catalysts used for oxidising sulphur dioxide, I, 463.

Pevsner, D. See Liubimova, M. N. Pewny, W., agranúlocytosis forme fruste,

111, 645. Peyer, G., action of sulphanilamidothiazole

on B. murisepticus infections, III, 785.

Peyron, A., evolution of amnio-ectoblastic vesicles in parthenogenie poly-embryomata in human testes, III, 239.

Pfaffmann, C., potentials in isolated medullated axon, III, 253. Gustatory afferent impulses, III, 566.

Pfau, A. S., and Plattner, P. A., volatile plant substances. XI. Constitution of  $\beta$ -vetivone, II, 137.

Pfeiffer, C., Dreisbach, R. H., Glass, H. G., and Roby, C. C., calcium and potassium changes in blood and urine of dog during excitement and after bilateral vagal section, III, 76. Hamoconcentration with low serum-calcium in vagotomised parathyroidectomised dogs, III, 94.

Glass, H. G., and Dreisbach, R. H., effect of varying intake of dietary salts on formation of galactose cataracts, III,

864. See also Roby, C. C.

Pfeiffer, C. A., and Kirschbaum, A., secretion of androgen by the sparrow ovary following stimulation pregnant mare serum, III, 671. with

Kirschbaum, A., and Gardner, W. U., relation of estrogen to ossification and levels of serum-calcium and -lipin in English sparrow, III, 676.

See also Kirschbaum, A., and Landauer,

Pfeiffer, C. C. Sec Yonkman, F. F.

Pfeiffer, D. C. See Hill, J. M.

Pfiffner, J. J., and North, H. B., isolation of 17-hydroxyprogesterone from adrenal gland, II, 259. a\beta-Unsaturated ketone from adrenal gland, II, 297.

Pfund, A. H., refractive index of matter in a cylindrical form, I, 389.

Phair, J. J. See Eller, C. II.
Phalnikar, N. L. See Bhakkhande, A. II.
Phatak, N. M., Zener, F. B., and David,
N. A., effects of iodine therapy on blood-iodine and basal metabolic rate in pregnancy, III, 288. See also David, N. A.

Phelps, D. See Cleveland, R. Phelps, W. M., rehabilitation of cerebral palsy, III, 859.

Phibbs, B. P., Wigodsky, H. S., and Ivy, A. C., effect of oxidised bile salts on gall-

bladder bile, III, 585. Phillips, A., and Skinner, E. N., solubility of oxygen in high-purity copper, I, 331.

Phillips, A. H. See Hess, H. H. Phillips, E. W., time required for production of hay fever by spores of newly encountered fungus, Johnson grass smut, III, 812.

Phillips, H. See Elsworth, F. F. Phillips, J. D. Sec Gross, P.

Phillips, L. M. See Munch, J. C. Phillips, L. W., and Parker, IV. L., spectra of argon in the extreme ultra-violet, I, 437.

Phillips, Max, and Goss, M.J.; composition of nutshells, III, 482.

See also Davis, B. L.

Phillips, Melba, electronic g factors for alkali atoms, I, 394.

and Feenberg, E., Coulomb exchange

energy in light nuclei, I, 191.

Phillips, M. A., condensation of halogenopyridines, -quinolines, and -isoquinolines with sulphanilamide, II, 75. Condensation of 6-amino-2-hydroxypyridine with p-acetamidobenzenesulphonyl chloride, II, 173. Preparation of 4-acctamide-2hydroxyphenylarsenoxide, II, 177.

Phillips, P. H., Lardy, H. A., Heizer, E. E., and Rupel, I. W., sperm stimulation in bull by subcutaneous administration of ascorbic acid, III, 442.

See also Lardy, H. A., and Mills, R. C. Phillips, R. W. See Schott, R. G.

Phillips, T. G., semimicro-determination of copper reduced by sugars, II, 180.

Phillis, E., and Mason, T. G., effect of ringing on upward movement of solutes from the root, III, 57. Effect of ringing and of transpiration on mineral uptake, III, 57. Upward movement [in cotton plants] of soil solutes, III, 233. Partition of mineral elements in cotton plant, III, 234. Expression of sap by low pressure, III, 815.

Philpot, F. J., and Cantoni, G., adrenaline destruction in liver and methylene-blue, III, 349.

Philpot, J. St. L., self-heating hot-bottle, I,

Phisalix, natural immunity of venomous species and its mechanism, III, 146.

Piankov, V. A., and Loevski, M. L., sorption of mercury vapour by oxides and salts of metals, I, 373.

Piantoni, C., mechanism of renal excretion of vitamin-C, III, 202.

Piasecka-Zeyland, E. See Zeyland, J.

Piatnitzki, M. P., effect of mineral salts on storage of citric acid by leaves of Nicotiana rustica and Nicotiana glauca, III, 400. Effect of organic acid salts on storage of citric acid by leaves of tobacco plants, III, 400.

Picard, C. W., and Spring, F. S., triterpene resinols and related acids. XII. Oxidation of  $\beta$ -amyradienyl-I acetate with selenium dioxide, a new route to Jacobs'

keto-diol,  $C_{30}H_{44-46}O_3$ , II, 73. Picard, W. See Friedman, M. Piccione, F. V., and Boyd, L. J., determin-

ation of blood velocity by lobeline, III,

See also McGavack, T. H.

Piccioni, O. See Bernardini, G. Picena, J. P. See Warren, S.

Pich, J., circumscribed lipomatosis of thyroid gland, III, 93.

Pick, E. P., site of action of hypnotics and analeptics in brain, III, 665.

Pick, J. W., and Anson, B. J., inferior phrenic artery: origin and suprarenal branches, III, 237.

Pickard, H. B. See Gucker, F. T., jun.

Pickard, J. N., waved—a new coat type in

rabbits, III, 413.

Pickat, A. K., Kurtsina, O. I., and Zenin, N. S., effect of food phosphatides on chemical composition of body, III, 890.

Pickel, F. D. See Price, D.

Pickels, E. G. See Smadel, J. E., and Smith, E. L.

Picken, L. E. R., plasma utilisation in serum processing, III, 964.

See also Harrison, G. A. Pickens, M., Anderson, W. E., and Smith, A: H., composition of grains made by rats on diets promoting different rates of gain, III, 21.

Pickering, G. W., high blood pressure in man, III, 497.

Pickering, W. H. See Neher, H. V. Pickett, A. D. See Chandler, S. B.

Pickett, (Miss) L. W., Paddock, (Miss) E., and Sackter, (Miss) E., ultra-violet absorption spectrum of 1:3-cyclopentadiene, I, 238.

Pickett, M. J., and Clifton, C. E., effect of selective poisons on utilisation of glucose by yeast, III, 797.

See also Blinks, L. R. Piekara, A., coupling of molecules in liquids, I, 75.

Pielemeier, W. H. See Telfair, D.

Pierce, I. H., absorption of nicotine from cigarette smoke, III, 790.

Pierce, J. A., ionisation by meteors, I,

Higgs, A. J., and Halliday, E. C., decrease in ionisation of  $F_2$  region during solar eclipse, I, 67.

Pierce, L. S. See McLachlan, W. W. G. Pietzonka, H., thyrotoxicosis and liver damage, III, 93.

Pigareva, Z. D. See Shukov, I. I.

Piggot, C. S., and Urry, W. D., radioactivity of ocean sediments. III., I, 134.

See also Urry, W. D.

Pigman, W. W., improved preparation of d-galacturonic acid, II, 59. Enzymic hydrolysis of disaccharides and halogenosalicins, II, 313. Action of almond emulsin on phenyl-glycosides of synthetic sugars and on \(\beta\)-thiophenyl-dglucoside, III, 534.

and Isbell, H. S., optical rotatory relationships exhibited by aromatic and aliphatic glucosides, II, 313.

Pigott, M. G. See Holmes, A. D. Pike, G. M. See Sexton, D. L. Pikovski, M. See Doljanski, L.

Pilcher, F. See Alvarez, W. C.

Pilcher, F., jun., and Aikenhead, A. E., accidental bilateral ligation of ureters, III, 273.

Pilgrim, A. See Hatt, II. II. Pilgrim, G. E., dispersal of artiodactyla, III, 409.

Pilkington, F., bromide therapy and intoxication, III, 466.

Pillai, S. S. See King, E. J.

Pillemer, L., and Ecker, E. E., anticomplementary factor in fresh yeast, III, 304.

Seifter, S., and Ecker, E. E., effect of lipin solvents on fourth component of complement, III, 555.

See also Ecker, E. E.
Pinaevskaja, E. N. See Jatlov, V. S.
Pincus, A. G. See Biscoe, J.

Pincus, G., and Martin, D. W., liver damage and æstrogen inactivation, III, 101.

and Pearlman, W. H., alcoholic and nonalcoholic keto-steroids [in urine] and Zimmerman colour reaction [relation to cancer], III, 1029. See also Graubard, M.

Pincus, J. B. See Gittleman, I. F.

Pincussen, L., immunological test for human blood and human protein in stools, III, 513. Importance of temperature for colorimetric determinations, III, 543.

Pinelli, L., indican in normal blood, III, 168.

Pines, B. Sec Rabinovitch, J.

Pines, H., Schmerling, L., and Ipatiev, V. N., isomerisation accompanying alkylation. III. Alkylation of benzene with neopentyl chloride and alcohol, II, 215.

Piness, G. See Miller, Hyman. Piney, A., chronic hypogranulocytosis, III,

Ping, C. See Wu, Y. J.

Pink, R. C., stabilisation of water-in-oil emulsions by oil-soluble soaps, I, 208. Pinnell, E. E., intravenous evipal in

minor gynæcological operations, 111, 913.

Pinsker, Z., and Tatarinova, L., investigation of silver amalgams by electron diffraction, I, 296.

Pinson, E. A., intra-ocular pressure at high altitudes, III, 747.

Pinson, K. B., and Bradbury, R., comparison of three methods of general anæsthesia in school dentistry including administration of cyclopropane, III, 787.

Pinto, S. S., grain dust as occupational hazard, III, 791.

Elkins, H. B., and Ege, J. F., jun., renal exerction of industrial chemicals. I. Urinary lead concentration and bloodlead clearance, III, 1058.

Piore, E. R., and Morton, G. A., behaviour of willemite under electron bombard-

Piper, C. S., marsh spot of peas: a manganese deficiency disease, III, 1084.

and Oertel, A. C., silica and pyrex glass stills with automatic constantpressure feeds, I, 283.

Pirenne, M. H. See Hecht, S. Pires Soares, J. M. See Paes, E.

Pirie, N. W., criteria of purity in study of large molecules of biological origin, III,

Pirson, A., effect of alkali metal ions on growth and metabolism of Chlorella, III, 398.

Pischtschimuka, P. S., nitrogenous compounds of mercury as promoters of chemical activity of selenium, and their rôle in preparation of azo-compounds, azines, and dyes from arylamines by

action of sulphur or sclenium, II, 8.

Pisharoty, P. R., geometry of quantum reflexion of X-rays in diamond, I,

451.

See also Raman, (Sir) C. V.

Pittaluga, G. See Tzanck, A. Pittinos, G. E., Ehlers-Danlos syndrome [friability of the skin and blood vessels] with disturbance of creatinine meta-

bolism, III, 976. Pittman, M., determination of mouse protective action of meningococcus anti-

serum, III, 392.

Pitts, R. F., respiratory centre and its descending pathway, III, 430.

Pitzer, E. C., and Frazer, J. C. W., physical chemistry of hopealite catalysts, I, 341.

Pitzer, K. S., heat capacity and entropy of silver iodide and their interpretation in terms of structure, I, 198. Heat capacity of gaseous paraffin hydro-'carbons, including values for n-pentane and  $\beta\beta$ -dimethylbutane, I, 458.

and Hildebrand, J. H., colour and bond

character, I, 451.

and Scott, D. W., thermodynamics of branched-chain paraffins; heat capacity, heat of fusion and vaporisation, and entropy of  $\beta \gamma \delta$ -trimethylpentane, I, 458.

See also Alvarez, L. W., Coulter, L. V., and Mosesman, M. A.

Pivnenko, G. P. See Valjaschko, N. A. Plaksin, I. N., and Suvorovskaja, N. A., system platinum-mercury, I, 107, 408.

Plant, J. S., negativism: its treatment and implication, III, 743.
Plant, M. M. T., and Johnson, E. D., isolation of rhamnose derivatives from Ulva lactuca, III, 483.

Plant, W., rôle of growth-substances in regeneration of root cuttings, III, 60. Effect of X-rays on regeneration of root cuttings, III, 481.

Plass, E. D. See Oberst, F. W.

Plati, J. T. See Helmkamp, R. W.

Platon, E. S., Dwan, P. F., and Hoyt, R. E., streptococcus convalescent serums (scarlatinal), III, 394.

Platow, A. M., sodium furoate as preservative [of thiosulphate and starch solutions], I, 57.

Platt, A. E., sodium chloride in agglutination of bacteria by antibody, III, 632.

Platt, A. P. See Channon, H. J.

Platt, B. C., optically active ay-diethylallyl

alcohol, II, 238.

Plattner, P. A., and Magyar, G. [with Okami, K.], sesquiterpenes. XLVI. Transformation of guaiol into cadalenc, II, 230.

and Schreck, W., steroids and sex hormones. LXVII. Preparation of a homologue of progesterone, II, 259.

and Wyss, J., sesquiterpenes. XLVII. Synthesis of mono- and di-methyl-XLVII. azulenes, II, 217.

See also Pfau, A. S., and Ruzicka, L. Plechan, M. I., biuret reaction as a titri-

metric method, and its application to characterisation of individual proteins, II, 115.

Plenina, G. N. See Jermolenko, N. F. Plentl, A. A., and Bogert, M. T., synthesis of tricyclic hydrocarbons related to stilbæstrol, II, 190.

Pleskov, V. A., potential of Cu/Cu· in liquid ammonia, I, 268. Electrode potentials in anhydrous hydrazine, I, 269.

Pletcher, D. E. See Wolfrom, M. L. Plewes, B., multiple glomus tumours; four

in one finger tip, III, 496.

Pligunov, V. P. See Boreskov, G. K.

Plimmer, R. H. A., esters of phosphoric acid. IV. Phosphorylhydroxyaminoacids, II, 244. See also Lowndes, J.

Pliske, E. C., influence of zona pellucida in follicular atresia, III, 66:

Plotho, O. von, morphology and physiology of Actinomyces, III, 798.

Plotnikov, V. A., methodics of third law of thermodynamics, I, 212.

and Dibrova, A. T., electrochemical investigation of xylene solutions, I, 378. and Dumarevskaja, V. N., physico-chemical study of system aluminium bromide and sodium iodide in ethyl bromide, I, 376.

and Gitman, E. B., variation of electric conductivity of aluminium bromide

solutions in xylene, I, 378.

Kiritschenko, E. I., and Fortunatov, N. S., electromotive forces in molten chlorides of aluminium and sodium, I, 269.

and Liulka, V. V., electrolytic deposition of a vanadium-aluminium alloy, I, 379.

and Michailovskaja, V. I., electrolysis and galvanic concentration cells in system bromine-pyridine, I, 213.

Skobetz, E. M., and Kleibs, G. A., electrolysis of salts through a crystal membrane, I, 213.

and Spektor, B. V., electrochemical study of system TlBr-AlBr3 in benzene, 1, 378

and Vaisberg, R. G., thermochemistry of non-aqueous solutions. I. Heat of solution of bromides and chlorides of aluminium and antimony in nitrobenzene, I, 212.

Plotz, H., cultivation in vitro of measles virus, III, 232.

Plotz, M., and Rothenberger, M., phenolsulphonephthalein test of renal function [in man], III, 273.

Plucker, J., 3rd. See Amstutz, E. D.

Plügge, H. See Appel, W. Plumley, H. J., conduction of electricity by dielectric liquids at high field strengths, I, 322.

Plummer, N., chemotherapy of pneumonia, III, 459.

and Ensworth, H. K., absorption and excretion of sulphadiazine, III, 380.

Liebmann, J., Solomon, S., Kammerer, W. H., Kalkstein, M., and Ensworth, H. K., chemotherapy versus combined chemotherapy and serum in pneumonia, III, 1044.

Plummer, W. A. See Kirklin, O. L.

Plunkett, R. E., Weber, G. W., and Katz, J., value of Roentgen-photographic methods, III, 1086.

Poch, R. L., capillary analysis in bromatology; application to study of fatty

materials, I, 258.

Pochil, P. F. See Bresler, S. E.

Pock-Steen, P. H., sprue-like metabolic disturbances, III, 26.

Pockman, L. T., and Webster, D. L., making thin [X-ray] targets, I, 432.
Podolskaja, M. Z. See Goldovski, A. M.

Pötzl, O., relationship between right and left cerebral cortex, III, 87.

Pogen, A. S., calcium therapy in heart failure, III, 217.

Poggi, M. See De Diesbach, H.

Pogodin, S. A., and Schumova, I. S., solid solutions of beryllium and magnesium in copper, I, 252.

Pohl, H. A., heat filter for tissue illuminator, 111, 820.

and Flexner, L. B., transfer of radioactive sodium across placenta of eat, III, 764.

Hobbs, M. E., and Gross, P. M., electric polarisation of carboxylic acids in dilute solutions of non-polar solvents. I., I, 298.

See also Flexner, L. B.

Pohle, F. J., and Stewart, J. K., kephalincholesterol flocculation test as aid in diagnosis of hepatic disorders, III, 882. Pohlisch, K., genetic problems in psychiatry

(sib-psychiatry), 111, 995.

Pohlman, A. G., a variable in sensitivity to bone-conducted sounds, III, 182. Reactions of ear to sound, III, 751.

Pojer, J., relationship between sodium and chloride in cardiac insufficiency, III, 79.

Pokrovskaja, G. N. See Schwartz, L. S. Polacheck, W. S., heredity of pseudohypertrophic muscular dystrophy, III, 982.

Polanyi, M. See Baughan, E. C. Polanyi, V. See Aloisi, M.

Polayes, S. H. See Levine, P.

Polder, D. See Ketelaar, J. A. A. Polding, J. B., and Edwards, W., apparatus for small-scale cultivation of bacteria requiring partial carbon dioxide atmosphere, III, 309.

Polesitzki, A., nuclear fission fragments as radioactive indicators of iodine exchange between silver iodide and

solution of iodide, I, 143 and Nemerovski, N., chemical nature of radioactive fragments of thorium fission; radioactive halogens. II., I,

and Orbeli, M., chemical nature of radioactive fragments of thorium fission; radioactive halogens. I., I, 143.

Polgar, A. See Zechmeister, L. Polinard, E., dolerites from Portuguese

Guinea, I, 63.

Poling, C. E. See György, P. Polischtschuk, A. B. See Fialkov, J. A. Poljakov, M. P., micro-burettes and -pipettes based on principle of capillarity, 1, 131. Immersed capillarimeter; device for measuring surface tension of liquids in closed space, I, 432.

Poljakova, N. M. See Schesterikova, T. P.

Poljakova, O. I. See Kuzin, A.

Pollack, H., Ellenberg, M., and Dolger, H., vitamin- $B_1$  excretion determined by fermentation method, III, 1035.

Pollaczek, H. See Posternak, T.

Pollak, L., and Flaum-Feher, G., sugar distribution in organism and action of insulin, III, 122.

Pollard, C. B. Sec Singleton, F. G., and Smith, M. E.

Pollard, E., regulated filament emission for cyclotrons, I, 131

See also Shrader, E. F.

Pollard, W. G. See Margenau, H. Pollock, G. A. See Stewart, C. P. Pollock, W. Sec Krichesky, B.,

and Sapirstein, L. A.

Polotzki, I. G. See Urazovski, S. S. Polster, H. D. See Paul, F. W.

Pomales-Lebrón, A., and Morales-Otero, P., hamolytic streptococci from throat of normal monkeys, III, 629. See also Morales-Otero, P.

Pomerantschuk, I., maximum energy which primary electrons of cosmic rays can have on earth's surface due to radiation in the earth's magnetic field, I, 145.

See also Davidov, B.

Pomerantz, M. A., and Johnson, T. M., relative stopping powers of carbon and lead for slow mesons, I, 316.

Pomerat, G. R., mitotic activity in pituitary of white rat following castration, III,

Pomeroy, B. S. See Petersen, W. E. Pomeroy, R. W., effect of a submaintenance

diet on composition of pig, III, 282.

Pommerenke, W. T. See Thompson,

H. E., jun.

Pompeia, P. A., Santos, M. D. de S., and Wataghin, G., penetrating cosmicray showers, I, 3.

See also Santos, M. D. de S.

Pompeo, D.J., and Meyer, E., construction of glass bellows, I, 432.

Pomriaskinsky-Kobozieff, N. A. See Kobozieff, N.

Ponoher, H. G., and Ricewasser, J. C., stability of Quick's thromboplastic solutions for prothrombin tests, III,

See also Hess, J. H., and Massler, M.

Pond, H. See Gibbs, O. S.
Ponder, E. See Cox, R. T., Furehgott, R. F., and Steggerda, F. R.

Ponder, F., Hyman, C., and White, L., activity of hemolysins in vivo, III, 833.

Ponsford, A. P. See Stewart, W. L. Ponsold, A., determination of red cell receptor strength, III, 323.

Pontecorvo, G., induction of chromosome losses in Drosophila sperm and their linear dependence on dosages of irradiation, III, 157.

Poo, L. J. See Yuen, D. W. Pool, M. L. See Allen, J. S. V. Pool, W. O. See Ralston, A. W.

Poole, E. A., and Hinshelwood, C. N., physico-chemistry of bacterial growth. | VI. and VII., Ill, 306.

Poole, J. H. J., evolution of atmosphere, I,

Pope, C. G. Sec Barr, M.

Popjak, G. See Dible, J. H. Popkin, A. H. See Whitmore, F. C.

Popkin, R. J., cyverine hydrochloride, a new synthetic papaverine-like compound; vasodilator action in chronic occlusive peripheral vascular diseases, III, 614.

Popoff, N., pathology of the stomach, III, 361.

Popov, M. M., Simonov, J. P., Skuratov, S. M., and Suzdaltzeva, M. N., mixed crystals. V., I, 407.

Skuratov, S. M., and Nikonova, I. N., mixed crystals. III., I, 407.

Skuratov, S. M., and Streltzova, M. M., mixed crystals. IV., I, 407.

Popov, P. G., detection of silver by means of ammonium persulphate and manganese sulphate, I, 387.

Popov, S.  $\hat{N}$ ., reaction of  $\beta\beta'$ -dichlorodiethyl ether with dimagnesium dibromoacetylene, II, 58.

Popović, Z. See Rnžičič, U. S. Popper, H., histological distribution of vitamin-A in human organs under normal and pathological conditions, III, 891.

and Greenberg, R., visualisation of vitamin-A in rat organs by fluorescence microscopy, III, 1034.

and Ragins, A. B., histological demonstration of vitamin-A in tumours, III, 1028.

See also Greenberg, R.

Popper, L. Sec Peczenik, O.

Popura, A. M., radiation treatment of salivary fistulæ, III, 793.

Porai-Koschitz, A. E., and Chromov, N. V., tautomeric compounds. I. isoOxazolone and oxazolone derivatives, II, 54.

and Moerder, C., second-order colours, I, 149.

Porai-Koschitz, B. A., and Mostriukov, P. M., products of condensation of phthalic anhydride with benzidine, II,

Porch, L. D., histamine therapy in allergy, III, 313.

Porges, N., and Clark, T. F., graphical correlation between pH values, molarities, and dissociation constants of weak acids, I, 167. See also Clark, T. F.

Poris, E. G., variations in histology of hypophysis of Anolis carolinensis; Golgi configuration in cells of pars anterior and pars intermedia, III, 826.

Porter, B. H., supersonic oscillator, I,

Porter, D. A. See Swanson, L. E.

Porter, D. R. See Kohman, E. F.
Porter, J. C., Robinson, (Sir) R., and
Wyler, M., monothiophthalimide and some derivatives of oxindole, II, 375.

Porter, J. R. See Gillespie, R. W. H., and Pelczar, M. J., jun.

Porter, P. M., change in resistance of red cells to hæmolysis, III, 244. Porter, R. D., management of pregnancy in

diabetes, III, 756. Porter, T., iron balances in four normal

pre-school children, III, 517. Portheim, L., action of heteroauxin on

Phaseolus vulgaris, III, 818. Porto, J., relation between hypophysis and adrenals of toad, III, 757.

Porutzki, G. W., effect of hormones in urine on the potato, III, 712

Poser, M., biomicroscopy, III, 667.

Post, H. W., and Hofrichter, C. H., jun., silico-organic compounds. III. Preparation and reactions of silicon analogues of aliphatic orthoesters, II, 36.

Posternak, T., biochemistry of lower fungi. IV. Pigment of Penicillium roseopurpureum, Dierckx, II, 49.

and Pollaczek, H., phosphopeptone of casein (lactotyrine), II, 306. Enzymic degradation of a peptide and phosphorylated polyose, III, 706.

Posthikov, V. F., and Speranski, A. I., preparation and properties of lead tetrachloride, hydrochloroplumbic acid, ammonium plumbichloride, I, and

Potampa, P. B. See Strohm, J. G. Potter, E. L., Seckel, H. P. G., and Stryker, W. A., hypertrophy and hyperplasia of islets of Langerhans of fœtus and new-

born infant, III, 571.

Potter, J. G., temperature dependence of work function of tungsten from measurement of contact potentials by Kelvin method, I, 1. Temperature dependence of work function of tungsten, I, 139.

Potter, M. G., teras anadidymus, III, 719.

Potter, R. L. See Moxon, A. L.
Potter, V. R., mechanism of hydrogen
transport in animal tissues. III. Cyanide inhibition of cytochrome c reduction, III, 301. Mechanism of hydrogen transport in animal tissues, III, 526.

See also Lockhart, E. E.

Pottinger, R. E. See Schimpff, G. W.
Potvin, R. See Steacie, E. W. R.
Pough, F. H., willemite morphology and paragenesis at Balmat, N.Y., I, 92.
Occurrence of willemite, I, 353.

Pound, J. R., permanency of solutions used

in volumetric analysis, I, 345.

Povolotskaja, K. L., determination of flavin (vitamin-B<sub>2</sub>) in vegetable materials, III, 597.

Powell, A. L. See Feldman, H. B. Powell, C. F., Heitler, H., and Champion,

F. C., neutron-proton scattering at high energies, I, 67.
Powell, E. L. See Hogan, A. G.
Powell, E. S., antigen pipette for Kline

syphilitic test, III, 311.

Powell, G., Salmon, M., Bembry, T. H., and Walton, R. P., active principle of marihuana, III, 819.

Powell, H. M. Scc Sidgwick, N. V. Powell, J. F. Scc Black, D. A. K. Powell, L. S., Hyde, M. E., and Russell, J.,

observations on eyes during metrazol treatment, III, 667. Observations on eves during insulin shock treatment, III, 667.

Powell, R. E., Clark, C. R., and Eyring, H., thermodynamic properties of large molecules, I, 261.

Powell, W. M., production of mesotrons by ionising radiation, I, 443.

Power, F. H., Pedersen, S., and Maddock, W. G., tetany following sodium chloride replacement therapy, III, 860.

Power, M. H. See Haines, S. F.
Powers, E. B., spawning migration of
salmon, III, 224. Physico-chemical behaviours of waters as factors in "homing" of salmon, III, 468.

Powney, J., and Wood, L. J., anomalies between electrophoretic mobility and interfacial tension data for paraffin-chain salt solutions, I, 209. Properties of detergent solutions. XI: Electrophoretic mobilities in dodecylpyridinium iodide solutions, I, 209.

Pranion, A. B., technique for pneumo-coccus typing by "Quellung" reaction,

111, 1070.

Prasad, M., and Modak, K. V., measurement of opacity during coagulation of concentrated sols of zirconium and stannic hydroxides and gelation of stannic phosphate and zirconium hydroxide gel-forming mixtures, I, 41. and Naqvi, M. A., heterogeneous re-

action between chromic sulphate and

manganese dioxide, I, 51.
and Shejwalkar, B. G., viscosity of
thorium arsenate gels during setting, I, 12.

and Viswanath, C. V., soap gels in pinene, I, 83.

Prasad, S. P., Singh, B. N., and Singh, B. D., effect of flow on dielectric constant of liquids, I, 400.

Prather, P. F. See Felton, L. D.

Pratt, C. J., extraction apparatus, I, 486. Pratt, C. L. G., composition of gastric content and effect of histamine, III,

Pratt, H. J. Sec Munch, J. C. Pratt, H. N. Sec Hill, L. W.

Pratt, I., effect of Eimeria tenella on glycogen stores of chicken, III, 1040.

Pravdin, L. F., rooting and growth of leafy stem cuttings stimulated by heteroauxin, III, 541.

Pravdina, L. I. See Turovetz, I. M.

Pray, L. G., lumbar puncture as factor in pathogenesis of meningitis, Ill, 996. Prebus, A., improved pole-piece construc-

tion of objective lens of a magnetic electron microscope, I, 59.

Preckel, R., and Selwood, P. W., dissociation of hexaphenyldiplumbane, I,

See also Selwood, P. W.

Preis, E. M., ageing of sols and gels. VIII. Alcosols of mercury acetamide. IX. Ageing of hydrosols of various resins, 1, 112, 261.

and Nikolaeva, M. A., ageing of sols and gels. V. Influence of electrolytes on formation of sols of mercury acetamide, I, 11.

Preobrashenskaja, K. P. See Sergievskaja, S. I.

Preobrashenski, I. A., native iron of Timan, I, 227.

Preobrashenski, N. A. See Schtschukina, M. N., and Spitzin, V. I.

Present, R. D., nuclear radii, I, 361.

Presman, S. E. See Kulberg, L. M. Press, E., and Litvak, A. M., Schultz-Charlton and Dick tests in scarlet fever, ·III, 804.

Press, J. See Meyer, K. H.

Pressman, D. See Pauling, L.

Prestera, O. A. See Sá, A.

Preston, E., crystallisation in silicate slags and glasses, I, 204. Supercooled silicates and their importance in considerations of the liquid state, I, 370.

Preston, F. E., distance object test type for children, III, 746.

Preston, G. D., diffuse reflexion of X-rays, I, 153, 245. Zine oxide smoke, I, 156. Precipitation in solid state, I, 331.

Preston, J. S., photo-electric measurement of average intensity of fluctuating light

sources, I, 222.
Preston, R. D., "crossed fibrillar" structure of plant cell walls, III, 943. Fine structure of phloem fibres. II. Untreated and swollen jute, III, 943.

Pretzseh, W. Sec Dyckerhoff, H.

Prévot, A. R., pathogenic, biochemical, and cultural properties of Ristella clostridii-formis (Burri and Ankersmit), P. 1938, III, 930.

Prevot, P., relation between epidermis and other tissues of leaf in neoformation of buds in Begonia rex, Putz., Ill, 57. Accumulation of bromine by Empetrum nigrum, L., in relation to phases of development, III, 58. Influence of heteroauxin (indolyl-3-acetic acid) on initiation of buds in Begonia rex, Putz., III, 60.

Preziosa, A. H., generation of hydrogen sulphide, I, 59.

Price, A. S., schistosomiasis (S. mansoni) [treatment], III, 614.

Price, C. C.. γγ'-di-p-tolyl-γγ'-suberodilactone, 1Ι, 12.
Chapin, E. C., Goldman, A., Krebs, E.,

and Shafer, H. M., reaction of furoic acid with aromatic compounds, II, 291.

and Lund, M., alkylation of benzene with d-sec.-butyl alcohol, II, 215.

and Schwarcz, M., chlorination of diethyl cis- and trans-hexaby drophthalates, II,

Price, D., and Griffith, R., esters of fatty acids, II, 3.
May, (Miss) E. L., and Pickel, F. D.,

pyrimidines related to vitamin- $B_1$ . I. New synthesis of 6-amino-2-methylpyrimidine-5-aldchyde, II, 52.

and Pickel, F. D., amino-analogue of vitamin-B<sub>1</sub>, II, 206.

Price, F. P., jun., and Hammett, L. P., effect of structure on reactivity of carbonyl compounds; temperature coefficients of rate of formation of semicarbazones, I, 474.

Price, J. R., and Robinson, (Sir) R., dunnione. II., II, 51.

See also Barber, H. N., and Beale, G. H. Price, J. W. See Miller, M.

Price, L., ophthalmic problems in aviation, III, 501.

Price, M. R., vitamin-B supplement in infants, III, 24.

Price, P. B., mercuric chloride, potassium mercuric iodide, and Harrington's solution as skin disinfectants, III, 612.

Price, W. C., and Simpson, (Miss) D. M., absorption spectra of nitrogen dioxide, ozone, and nitrosyl chloride in vacuum ultra-violet, I, 97.

Prichard, M. M. L. See Amoroso, E. C. Prichotko, A., absorption of light in solid and liquid ammonia. I. Absorption spectrum from (I) 5000 to 2000 A., (II) 10,140 to 5000 A., I, 71.

Prideaux, E. B. R., intermolecular sharing

of hydrogen, I, 151.

Prider, R. T., cordierite-anthophyllite rocks associated with spinel-hypersthenites from Toodyay, W. Australia, I, 62. Unusual occurrence of gypsum at Kalgoorlie, W. Australia, 1, 134. Hydrozincite from Narlarla, W. Australia, I,

Priestley, G. T., and Randall, K. C., total gastrectomy, III, 361.

Priestley, J. G., and Schwarz, H., solubility of acetylene in blood, III, 168.

Priestley, J. T., Essex, H. E., and Barker, N. W., use of heparin in prevention and treatment of postoperative thrombosis, III, 327.

See also Barker, N. W., and Harper, S. B. Prigge, R., active immunisation against

bacillary dysentery, III, 928.

Prileshaeva, E., Sirkin, J. K., and Volken-stein, M. V., Raman spectra of halogen derivatives of ethylene and electronic resonance, I, 321.

Primak, F.J., lymphatic system of heart in heart disease at different periods of life, III, 79. Dystrophy of myocardium and lymphatic system in sensitisation of organism, III, 974.

Primakoff, H. See Holstein, T.

Prin, A. See May, E.

Prins, D. A., and Reichstein, T., constituents of adrenal cortex and related substances. XLIII. The fourth isomeric allopregnane- $3(\beta)$ :17:20-triol. XLVI. Transformation of substance K into

substances J and O, II, 97, 251. Prinzmetal, M. See Leo, S. D.

Pristera, F. See Kallmann, S. Pritchard, C. F. See Chirnside, R. C. Pritchett, C. P. See Collins, E. N.

Pritzker, I. J., chemistry of growth of bird

embryo, III, 639. Probstein, J. G., and Londe, S., tests of

liver function by means of Quick's hippuric acid test, III, 106. See also Heifetz, C.J., and Londe, S.

Prokofiev, M. A. See Botvinnik, M. M. Pronin, S. I., temperature coefficients of enzymic hydrolysis of natural starches, III, 706. Kinetics of starch hydrolysis by panereatic amylase. III., III, 923.

Proom, H., streptococcus toxin-antitoxin flocculation and its relation to rabbit skin

test, III, 931.

Propert, S. A., lipoid pneumonia, III, 9.
Proskuriakov, N. I., Bundel, A. A., and
Bucharina, E. V., changes in protease protein complex in germinating and ripening wheat seeds, III, 937.

and Koshevnikova, A. N., determination of starch in plant materials, III, 943.

Proskurnin, M. See Borisova, T. Proskurnina, N. F., and Orekhov, A. P., alkaloids of Magnolia fuscata. II. Structure of magnoline, II, 111.

Province, W. D. See Carden, G. A. Prozorov, P., compressibility of aqueous solutions of acids and organic liquids, I. 460. Compressibility of aqueous solutions of strong electrolytes, I, 460. Prulachs, P., rare anomaly of clavicle, III,

237.

Pryce, A.W. See Dingle, H. Pryce-Jones, J., Experiments on thixo-

tropic and other anomalous fluids with a new rotation viscometer, I, 167. Pryde, J., human fertility, III, 359. Pryor, H. B., width-weight tables (revised),

III, 823.

Schmeckebier, M., and Thelander, H. E., body build aspect of immunity to diphtheria, III, 801.

Przibram, H., antagonistic principles in anterior and posterior pituitary, III,

Psarev, G. M., influence of day length on stem growth in transverse section, III, 401.

and Neuman, N. F., effect of day length on cambial growth, III, 539.

Pschennova, K. V. See Smirnov, A. I. Ptschelin, V. A., structure and physicochemical properties of surface layers of high-molecular compounds. II. Surface properties of agar and starch gels, I, 39. Physico-chemical properties of outer surface of protein fibres, in connexion with affinity for water of their interior, I, 45. Surface potentials of solutions of amino-acids and proteins, I, 465.

Pucher, G. W., and Vickery, H. B., determination of succinic acid in plant

tissues, III, 714.

Wakeman, A. J., and Vickery, H. B., determination of organic acids in plant tissue, III, 636.

Pucheu, H. See Krueger, A: P. Pucilek, L. S. Sec Kerr, W. H.

Puente, H. A., and Marin, F. R., recovery of uranium acetate in determination of sodium, I, 427.

Püschel, E., paroxysmal tachycardia in suckling, III, 335.

Pugh, B. See David, W. T.
Puh, Y. C., digestive enzymic actions in gut of earthworm, Pheretima, III, 881. Pulaski, E. J. See Shallow, T. A.

Pullinger, B. D., carcinogenic potency and first skin reaction to hydrocarbons, III,

Pulver, R., and Verzár, F., relationship of potassium and carbohydrate metabolism in yeast, III, 227. Potassium and carbohydrate metabolism of leucocytes, III, 728.

Pulver, W., chemotherapy of epidemic meningitis with sulphathiazole and cerebrospinal fluid changes, III, 35.

Pumper, E. J., absorption of ultrasonic waves in air and in monatomic gases, I, 159.

Pund, E. R. Sec Greenblatt, R. B. Puntenney, I., effect of physical and chemical stimuli on calibre of retinal blood vessels in man, III, 11.

Purcell, W. R. See Weiser, H. B. Purdie, D., 2-nitro-2'-aminodiphenyl, II, 358.

Purdy, T. L. See Crampton, E. W. Purser, G. L. See Landgrebe, F. W. Purushottam, A. See Joshi, S. S.

Purves, C. B. Sec Murray, G. E., and Smith, M. A.

Purviance, K. See Kellogg, F. Pusitz, M. E., Lattimore, J. L., Gold, A., and Ebendorf, II., biology and biochemistry of curare, III, 530.

Putilin, N. I. See Ass, T. V. Putnam, D. N. See Bowling, G. A.

Putschkovski, B. S., effect of Congo-red on coagulation of animal albumins by copper

salts. I., I, 14.
Pybus, F. C., and Miller, E. W., gross pathology of spontaneous bone tumours in mice, III, 205. Histology of spontaneous bone tumours in mice, III, 205.

Pyke, M., vitamin- $B_1$  in vertebrate muscle, III, 116. Vegetables as food, III, 895. and Wright, M. D., vitamin content of salmon, III, 373.

Pyle, S. I., interrelations of hamoglobin, basal metabolism, and creatine, creatinine, and magnesium excretion during pregnancy, 111, 196.

Quartaroli, A., and Belfiori, O., distinctive isomerism in synthetic and mineral inorganic compounds, I, 63.

Quastel, J. II., mechanism of enzyme action, III, 47.

and Racker, E., tissue anoxia and blood coagulation, III, 648.

and Webley, D. M., vitamin- $B_1$  and bacterial oxidations. I. Dependence of acetic acid oxidation on vitamin-B, III, 305.

See also Mann, P. J. G., and Michaelis,

Quayle, G. Sec Rivett, L. C.

Queen, F. B. See Mason, M. L.

Queloz, M., experimental metallic osteodystrophies; hepato-renal elimination of metals, 111, 529.

Quense, J. A., and Dehn, W. M., timesaving adaptation for photomicrography, I, 130. Microscopic identification of sugars and polyhydric alcohols, II, 80. Quensel, C. E. See Essen-Möller, E. Quibell, T. H. H. See Madinaveitia, J.

Quick, A. J., prothrombin concentration in blood of various species, III, 726. Therapeutic value and limitations of vitamin-K, III, 840. Diagnosis of hemophilia, III, 967.

Quigley, J. P., Werle, J. M., and Brody, D. A., correlation of antral and bulbar pressures with fluoroscopic observations during gastric evacuation, III, 199.

See also Brody, D. A., and Werle, J. M.

Quill, L. L. See Allen, J. S. V. Quimby, E. H., and Lawrence, G. C., measurement of dose in Roentgen therapy, III, 46.

Quinn, E. L. See Smith, J. II. Quinn, J. P., and Knox, C. W., sex identification of barred Plymouth Rock baby chicks by down, shank, and beak characteristics, III, 190. Sex ident-ification in hybrid chicks from barred Plymouth Rock male × Rhode Island Red female, III, 190.

Quinquaud, A. Sec Clerc, A., and Hazard, R.

Quist, J. D., and Washburn, E. R., electrokinetics, I, 262.

Quodling, F. M., and Mellor, D. P., double refraction of barium cadmium chloride tetrahydrate, I, 328.

Qureshi, M. See Basrur, V. S., Datar, D. S., Khan, M. A. R., and Masood, S.

Raab, W., presence antl chemical determination of adreno-cortical compounds in blood, III, 348. Distribution of adrenocortical hormones in tissues of rat under normal and experimental conditions, III, 755. Hormonal, central, and renal origin of "essential" hypertension, III, 979.

Rabald, E. Sec Hagedorn, A. Rabiner, A. M., Joachim, H., and Freiman, I. S., hepato-lenticular degeneration (Wilson's disease) following splenectomy,

III, 987.

Rabinovitch, J., Pines, B., and Teicher, I., peptic ulcer and pain, III, 678. Rabinovitsch, L.J. See Jermolenko, N.F. Rabinowitch, E., and Epstein, L.F., polymerisation of dyes in solution; thionine and methylene-blue, I, 98.

See also Epstein, L. F. Rabinowitz, M., cytology and early development of egg of Drosophila, III, 721.

Rachele, J. R. See Du Vigneaud, V.Rackemann, F. M., allergy, III, 538. Rackemann, F. M. See also Randolph, T.G. Racker, E., histidine in urine. II., Ill, 681. See also Quastel, J. II.

Radermacher, G., tetrophan treatment in infantile paralysis, III, 694.

Rado, G. T., and Kaufmann, A. R., absolute saturation magnetisation of nickel-antimony and nickel-tantalum alloys, I, 454.

Radtschenko, N. P. See Brodski, A. E. Rae, J. J., and Eastcott, E. V., determination of phosphatase in yeast, 111, 138. Effect of urea and sodium chloride on colorimetric determination of organic phosphate by King's method, III, 152.

See also Wormith, D.J.Rae, M.V. See Armstrong, A.R.Raevskaja, L. N. See Ass, T. V. Raffel, S. See Bailey, G. H.Raffel, W. See Sager, W. W.

Rafferty, M. A., and MacLachlan, P. L., influence of increased environmental temperature on blood-sugar of dogs following administration of carbo-hydrates, III, 558. Influence of increased environmental temperature on blood-sugar, liver-glycogen, and absorption in rats following administration of glucose and starch, III, 782.

Raffi, A. G., intracellular storage of carcinogenic hydrocarbons, III, 19.

Ragan, C. See Carnes, W. H. Ragan, G. L. See Kanne, W. R. Ragins, A. B. See Popper, II.

Rahn, H., and Painter, B. T., comparative histology of bird pituitary, III, 489.

Rahn, O. See Console, A. D. Rai, R. N., lines of quartet system in silver, I, 21.

Raiford, L. C., and Manley, R. H., formation of pyrazolines from unsymmetrically substituted dibenzylidene-acetones, II, 76.

Räihä, C. E., infant mortality and premature birth [rôle of anoxia], III, 339. Raines, J. R. See Nichols, B. H.

Rainsford, S. G. See Felix, A.

Raistrick, H. See Anslow, W. K., and Oxford, A. E.

Rajagopal, K. R. See Lawrie, N. R. Rajagopalan, S., synthetic experiments in

sympathomimetics. II. Poly- and heterocyclic ring systems, II, 360.

Rajagopalan, V.S. See Raman, (Sir) C. V. Rake, G., Shaffer, M. F., Jones, H. P., and McKee, C. M., soluble antigen in lymphogranuloma venereum, III, 808.

Rakieten, N. See Haggard, H. W. Ralli, E. P., Paley, K., and Rubin, S. H., liver-lipins in disease, III, 1018.

Rubin, S. H., and Rinzler, S., liverlipins in normal human livers and in cases of cirrhosis and fatty infiltration of the liver, III, 364.

See also Fein, H. D., Friedman, G. J., and Sherry, S.

Ralls, J. O., rates of reaction of stereoisomeric oximes of eholestenone and of benzylidene-p-bromoacetophenone with iodine monobromide, I, 119.

Ralph, P. H., histochemical demonstration of hæmoglobin in blood cells and tissue

smears, III, 957.

Ralston, A. W., McCorkle, M. R., and Bauer, S. T., orientation in acylation of phenol and in rearrangement of phenolic esters, II, 66.

Selby, W. M., and Pool, W. O., boiling points of n-alkyl nitriles, I, 295.

See also Harwood, H. J.

Ramachandran, B. V. Sec Damodaran, M. Raman, (Sir) C. V., crystals and photons, I, 245. Scattering of light in crystals, I. 447.

and Nath, N. S. N., X-ray reflexion in

crystals, I, 451.

and Nilakantan, P., modified reflexion of X-rays, I, 30. Classical and quantum reflexions of X-rays in crystals, I, 76. Quantum X-ray reflexion in diamond, 1, 102. Classical and quantum reflexions of X-rays, I, 365. Quantum

theory of X-ray reflexion, I, 402.

Nilakantan, P., and Pisharoty, P. R.,
quantum theory of X-ray reflexion, I,  $\hat{4}02.$ 

Rajagopalan, V. S., and Nedungadi, T. M. K., conical refraction in naphthalene crystals, I, 158.

Raman, P. V. A., synthesis of analgesics, II, 175.

Ramaswamy, A. S., nature of receptors in human retina, III, 865.

Ramaswamy, M. S. See Rao, C. N. B. Ramaswamy, S., crystal structure of coumarin, I, 366.

See also Srinivasan, M.

Rambar, A. C., Howell, K., Denenholz, E. J., Goldman, M., and Stanard, R., immunity to pertussis, III, 1069.

Ramdas, L. A., and Joglekar, S. Y., thermal repulsion, I, 401.

Ramiah, H. S. V., magnetic susceptibility of cadmium amalgams, I, 456.

Ramlal, N., and Nizami, S. B., surface tension of different dilutions of Boys' soap solution, I, 109.

Rammelkamp, C. A. See Keeper, C. S. Rammelkamp, C. H., and Jewell, M. L., comparative in-vitro study of various sulphanilamide derivatives on typhoiddysentery organisms, III, 693.

Ramon, G., and Richou, R., serological studies following injections of antitetanus serum and tetanus antitoxin,

Richou, R., and Monoury, G., comparative anaphylactic reactions to antitetanus serum and tetanus antitoxin, III, 231.

Ramsay, A. J. See Bennett, G. A.
Ramsay, B. P., Cleveland, E. L., and
Koppius, O. T., photon theory of optical resolving power, I, 390.

Ramsay, R. C. See Hock, C. W. Ramsay, W. N. M., and Stewart, C. P. analysis of blood-phospholipins, III,

Ramsey, H.J. See Hiestand, W.A. Ramsey, N.F. See Heydenburg, N.P.Ramsey, W. E., and Lees, W. L., Montgomery theory of counter discharge, Ĭ, 439.

See also Rose, M. E.

Ramskill, E. A. See Davidson, A. W. Ramstad, E., microchemical reaction for detection of celandine, III, 819.

Rana, K. N. See Hirwe, N. W.

Rand, C. W., and Reeves, D. L., traumatic enophthalmos, III, 432.

Rand, G. See Ferree, C. E.

Randall, A., rôlo of papillary pathology in renal calculus formation, III, 770.

Randall, H. M. See Foley, H. M. Randall, H. T. See Haagensen, C. D.

Randall, K. C. See Priestley, G. T. Randall, L. O. See Hjort, A. M.Randall, M., and Avila, W., b.p.-composition diagram of immiscible and partly miscible liquid systems, I, 115.

Randall, M., and Taylor, M. D., heat capacity and density of aqueous solutions of potassium iodate, potassium hydrogen sulphate, iodic acid, and sulphuric acid at 25°, I, 371.

and Weber, H.P., activity of constituents in mixtures of n-butyl alcohol and

water at 30°, I, 47. and Young, L. E., flow sheet and material balance of a quantitative experiment, I, 219.

See also Longtin, B., and Ruben, S.

Randall, W. C. See Hiestand, W. A.
Randle, S. B., Sober, H. A., and Kohler,
G. O., distribution of "grass-juice factor" in plant and animal materials,

Randolph, T. G., and Rackemann, F. M., blood-histamine level in asthma and

eosinophilia, III, 969.

Ranganathan, S. K., lactones related in structure to cardiac aglucones: lactone of β-aldehydo-β-cyclopentylpropionic acid,

Rangaswami, S., and Seshadri, T. R., constitutional factors controlling controlling visible fluorescence in compounds of benzopyrone group, II, 107.

Seshadri, T. R., and Venkateswarlu, V., fluorescence of coumarin derivatives, II, 301.

Ranges, H. A. See Cournand, A., Gold-

ring, W., and Shannon, J. A.
Ranjan, S., respiration of plants in light,
111, 711.

and Basu, S. K., physiology of wheat. V. Diurnal variations in total and amino-acid-nitrogen Triticum in vulgare, III, 815.

Rankin, J. L. See Canon, A. B.

Rankin, R. M., changes in content of iodine compounds and in histological structure of the thyroid gland of the pig during fœtal life, III, 719.

Ransom, W. W. See Kistiakowsky, G. B. Ranson, S. W. See Brookhart, J. M., Hetherington, A. W., and Wang, S. C. Rantz, L. A. See Keeper, C. S.

Ranzi, S., hæmocyanin formation during development of cuttle-fish embryo, III,

Rao, A. L. S., Raman spectrum of sugar, I, 6. Effect of temperature on Raman spectrum of glycerol, I, 241. Visible absorption bands of mercuric chloride, I, 290. Distribution of "trace" elements in biological material, III, 150.

Rao, B. L., Raman spectra of crystalline nitrates and sulphates, I, 447. Raman effect in potassium tartrate crystal, I, 448.

Rao, B. P. See Bhagavantam, S. Rao, B. S. M. See Bhabha, H. J. Rao, B. S. V. R., optical sensitisation and photovoltaic effect of dyes, I, 363. Photovoltaic effects in dye solutions, I,

Rao, C. N. B., Rao, M. V. L., and Ramaswamy, M. S., micro-determination of nitrogen by oxidative digestion, II, 343.

Rao, M. V. L., Ramaswamy, M. S., and Subrahmanyan, V., purification and chemical nature of rennin, III, 796.

Rao, D. A. A. S. N., Raman effect in gypsum, I, 291.

Rao, G. G., and Rao, T. V. S., catalysis by

ascorbic acid, I, 215. and Rao, W. V. S., mechanism of microbiological oxidation of ammonia, III., III, 140.

Rao, I. D. S., photochemical decomposition of malonic acid, I, 122.

Rao, K. A. N., and Gupta, G. N., cane molasses. II. Solubility of sugars in aqueous salt solutions, I, 9.

Rao, K. R., and Sastry, M. G., atomic energy values of ionised tellurium (Te II), I, 21. First spark spectrum of tellurium. I., I, 309. and Seshadri, T. R., synthesis of 7-hydratic spectrum.

oxy-5-methylcoumarin, II, 300.

See also Sastry, M. G.

Rao, K. S., hysteresis in sorption. I. and II. Titania gel-water system. III. Silica gel-water system. IV. Silica gelcarbon tetrachloride system. V. Ferric oxide gel-carbon tetrachloride and ferric oxide gel-water systems. VI. Sorption of water on cereals, I, 205.

Rao, M. R., sound velocity in liquid mixtures, I, 160. Temperature-dependence of adiabatic compressibility, I, 161. Thermal conductivity of liquids, I, 107, 330. Magneto-acoustic effect, 1, 401.

Rao, M. R. A. N., sulphur iodides. III. Sulphur di-iodide, I, 56. Sulphuryl iodide, I, 125. Selenium iodide, I, 125.

Rao, M. S., oxidation of glucose by plague

bacillus, III, 392. Rao, M. V. L. See Rao, C. N. B. Rao, N. A. N. See Subbaraya, T. S.

Rao, N. K. A. See Singh, N. B.

Rao, N. R., frequency changes in Raman spectrum of sulphuric acid, I, 241.

Rao, P. L. N., chemotherapy of bacterial II. Chemistry of some infections. organo-selenium compounds related to sulphanilamides, II, 342.

Rao, P. S., constitution of butrin, II, 314. and Reddy, P. P., occurrence of herbacetin in flowers of Indian tulip (Thespasia populnea), III, 405.

Reddy, P. P., and Seshadri, T. R.,

methylation of hydroxyflavonols using methyl iodide and potassium carbonate, II, 373.

S. R., and Aravamudachari, S., diamagnetism of phosphorus, I, 77. and Iyer, K. S. S., photo-electric effici-

ency of ferromagnetic metals at different temperatures in the soft X-ray region, 1, 400.

Rao, T. V. S. See Rao, G. G. Rao, V. S., and Seshadri, T. R., Indian lichens. I. Chemical composition of Roccella montagnei. III. Isolation of lichens. montagnetol, a new phenolic compound, from Roccella montagnei, II, 265; III,

Rao, W. V. S. See Rao, G. G.

Rapaport, H. G., and Klein, S., vitamin-P and capillary fragility, III, 561.

Raper, J. R., sexual hormones in Achyla. II. Distance reactions: conclusive evidence for a hormonal co-ordinating mechanism, III, 149.
Rapoport, K. M. See Schesterikova, T. P.

Rapoport, M., and Rubin, M. I., lead poisoning, III, 789.
See also Rhoads, T. F., and Rubin, M. I.

Rapoport, S., and Guest, G. M., distribution of acid-soluble phosphorus in blood cells of various vertebrates, III, 495.

Leva, E., and Guest, G. M., phytase in plasma and erythrocytes of various species of vertebrates, III, 703. Phosphorus exchange in phytate, lipins, and nucleoproteins in erythrocytes of geese, III, 724.

See also Guest, G. M.

Rappaport, B. Z., and Hoffman, M. M., urticaria due to aliphatic aldehydes, III, 1081.

Rappaport, F., and Lissner, L., microdetermination of ammonia in faces without distillation, III, 583.

Rapson, W. S., 1- and 2-methoxytriphenylenc, II, 95.

and Shuttleworth, R. G., free aryl radicals in Fittig and Ullmann reactions, II, 318. Benzey tetraenes. I., II, 318. Rardin, T. E. See Haam, E. von. Rarick, M. J. See Cady, H. P. Benzcycloocta-

Rarita, W., and Schwinger, J., neutron-proton interaction, I, 236. Exchange properties of neutron-proton interaction, I, 289. Particles with half-integral spin, I, 362.

Schwinger, J., and Nye, H. A., photodisintegration of the deuteron, 1, 317. Raschba, E. J., glycolysis and phosphoryl-

ation of carbohydrates in embryonic rabbit and chick muscle, III, 689. Raschba, O. J., biochemistry of nervous

system during pregnancy, III, 989. Raschevskaja, S., reduction of nitrocompounds by means of sodium sulphide,

Raschka, S. See Ruzicka, L. Rascoff, H., and Nussbaum, S., [sulphanilamide for scarlet fever, III, 214.

Rasetti, F., capture cross-sections for thermal energy neutrons. II., I, 142. Mean life of slow mesotrons, I, 289. Radioactivity of slow mesotrons, I, 316. Disintegration of slow mesotrons, I, 442.

Rashevsky, N., physico-mathematical aspects of problems of organic form, III, 4. Mathematical molecular biophysics, III, 299. Movements of chromosomes during cell division, III, 826. Correlations between different characteristics of organisms, III, 955. Mathematical biophysics of temporal sequences of stimuli, III, 982.

Raskin, A. See Gross, E.

Rasmussen, R. A., and Brunschwig, A., peptic activity of achlorhydric human gastric juice from carcinomatous stomachs, III, 765.

See also Brunschwig, A. Ratcliffe, A. W., and Martin, M., comparative incidence of prezone reactions în Mazzini, Kline diagnostic, and Kahn standard flocculation tests, III, 394.

Ratcliffe, H. L., familial occurrence of renal carcinoma in rhesus monkeys (Macaca: mulatta), III, 452. Median vaginal canal and other anomalies of genital tract of Didelphys virginiana, III, 824.

Ratlif, R. K. See Nesbit, R. M.

Ratner, B., Silberman, D. E., and Greenburgh, J. E., allergy in childhood; does heredity determine age of onset? Ill, 810.

Ratner, S. See Roloff, M.

Ratzkowski, B., acute yellow liver atrophy in infancy, III, 107.

Rau, L., acute idiopathic porphyry, III, 244.

Raulston, B. O. See Moore, F. J.
Ravdel, A., and Judin, F., properties of promoted tungsten, I, 273.

Ravdin, I. S., heparin, III, 418.

Rhoads, J. E., and Lockwood, J. S., use of sulphanilamide in treatment of peritonitis associated with appendicitis, ÎII, 125.

Ravenel, S. F., and Smith, D. L., chemotherapy of bacillary dysentery [in children], III, 906.

Ravenna, P., Banti syndrome, III, 164.

Raventos, J. See Das, S. C.

Ravetz, E. See Mazer, C.

Ravin, A. See Rymer, M. R.

Ravitsch, G. R. Velkove, W. A. and

Ravitsch, G. B., Volkova, V. A., and Kuzmina, T. N., polymorphism of C<sub>18</sub> unsaturated fatty acids, I, 159.

Volnova, V., and Kuzmina, T. N., polymorphism of unsaturated fatty acids C<sub>18</sub>, II, 312.
Rawles, M. E., development of melano-

phores from embryonic mouse tissues grown in colom of chick embryos, III, 239.

Rawles, W. T. See Mackenzie, C. A. Rawlins, T. E., and Takahashi, W. N. improved paraffin schedules for plant tissues, III, 315.

Rawlinson, W. A., variation of magnetic susceptibility of hæmin in various solvents, I, 33. Magnetic properties of potassium molybdocyanide and potassium molybdicyanide, I, 247. Effect of oxidising agents on hamocvanin, III,

Rawls, W. B., chronic tetany with changes in X-ray appearances of intestines, III, 880.

and Chapman, G. H., effect of gastric HCl and other factors on number of colon bacilli in fæces, III, 581.

Rawson, R. A. See Guest, M. M.

Ray, B. S., and Wolff, H. G., headache: pain-sensitive structures of head and their significance, III, 659.

See also Schumacher, G. A. Ray, J. N. See Gaind, K. N., and Juneja,

Rây, P., and Roy-Chowdhury, J., diguanide sulphate as a reagent for the determination of copper, I, 429. See also Chatteriee, S.

Ray, R. D., Evans, H. M., and Becks, H., effect of pituitary growth hormone on epiphyseal disc of tibia of rat, III,  $8\hat{6}9\hat{.}$ 

Ray, W. A. See Jones, G.
Ray, W. B. See Haythorn, S. R.
Rayburn, C. H., Harlan, W. R., and
Hanmer, H. R., effect of ultra-violet radiation on nicotine, II, 110.

Raychoudhury, P. C., complex chromiselenates, I, 384.

Raycraft, W. B. See Greengard, J. Raymond, S. M. See Cox, E. H. Raymond, W. D., minimum

dietary standards for East African natives, III, 114. Reasons for a nutritional policy in Tanganyika, III, 1030.

Jojo, W., and Nieodemus, Z., nutritive value of Tanganyika foods. II. Cassava, III, 773.

Raymond-Hamet, relative toxicity of yohimbine, corynanthine, and corynantheine, III, 381. Physiological properties of ibogaine shared by cocaine, III, 910.

Raynal, J. H., and Fournier, J., Bordet-Gengou medium in culture of cerebrospinal fluid and of serous effusions, III, 1073.

and Lieou, Y. C., experimental shock produced by dilute phenol solutions, 111, 619.

Raynaud, A. See Lacassagne, A. Rayner, D. H., structure and evolution of holostean fishes, III, 718. Raynolds, J. A. See Milas, N. A.

Raynor, G. V., constitution of magnesiumrich alloys in the systems magnesiumlead, magnesium-tin, magnesiumgermanium, and magnesium-silicon, I, 79. Brillouin zone for gallium structure, I, 104. Relationships between lattice types and Brillouin zones, I, 104.

and Hume-Rothery, W., technique for X-ray powder photography of reactive metals and alloys, with special reference to lattice spacings of magnesium at high temperatures, 1, 31.

See also Hume-Rothery, IV.

Razgon, R. See Volkov, E. Razmislov, G. V. See Esafov, V. I. Razouk, R. I., heat of wetting of wood charcoal by common liquids, I, 169. Heat of wetting of partially saturated charcoal, I, 170.

Razumov, N. V. See Nikitin, V. M. Razumovski, N. K., distribution of metal

values in ore deposits, I, 231.
Razumovski, V. V., nature of ethylenic

linking in olefines containing carbonyl group, II, 277.

Rea, C. See Yolton, N.

Read, E. R. See Atkinson, E. R.

Read, J., radium poisoning, III, 45.

and Mottram, J. C., tolerance con-centration of radon in atmosphere, III, 44.

Read, M. R. See Werle, J. M. Read, T. A., internal friction of single crystals of copper and zinc, I, 404.

Read, W. T., and Trotter, M., origins of transverse cervical and transverse scapular arteries in American whites and negroes, III, 821.

Reading, R. A., and Millikan, C. H.,

treatment of pneumonia, III, 905. Reagh, J. D. See Norrish, R. G. W. Reals, W. H. See Rhoads, P. S.

Reames, H. R. See Smith, M. G. Reasenberg, J. R. See Scholnik, S. S. Reboné, J. See Rosenblueth, A.

Recht, S., and Gerlóczy, F., anaphylaxis and liver function, III, 56.

Record, B. R. See Kekwick, R. A.
Rector, E. J. See Schwartz, A. S.
Rector, L. E., and Connerley, M. L.,

aberrant mucosa in œsophagus in infants and children, III, 722.

Reddy, P. P. See Rao, P. S.

Reding, R., malignancy following protein injections, III, 887.

Redlich, O., anharmonicity of vibrations of polyatomic molecules. I., I, 244. Redmon, B. C. See Peters, C. A. Redowitz, E., making bacterial counts in

a test-tube, III, 625.

Reece, R. P., androsterone effect on pituitary and mammary gland, III, 760.

See also Leonard, S. L.

Reed, A. C., treatment of malaria, III, 126. Paratyphoid fever with negative bacterial findings, III, 807.

Reed, G. B., and Orr, J. H., chemotherapy in experimental gas gangrene, III, 610. Reed, H. S. See Eltinge, E. T.

Reed, J. F., and Cummings, R. W., determination of copper in plant material, III,

Reed, S. K. See Emerson, W. S.

Reed, W. H. See Briggs, T. R. Reeder, W., and Nelson, V. E., fluorescence associated with proteins, III, 386.

Reel, P. J. See Reinhart, H. L. Rees, A. L. G., electron microscope, I, 224. Reese, A. B. Sec Martin, H. E

Reese, W. S., and Yaskin, J. C., preservation of convergence with paralysis of all lateral movements in intramedullary tumour of the pons, III, 568.

Reeve, E. C. R., relative growth in snout

of auteaters, III, 65.

Reeve, W., and Adkins, II., catalytic dehydrogenation of alcohols in liquid phase using ethylene as a hydrogen acceptor, II, 1.

Reeves, D. L., and Anderson, L. R., encephalitis periaxialis diffusa of Schilder, III, 256.

See also Morrison, S., and Rand, C. W. Reeves, R. E., determination of primary carbinol groups in carbohydrates, II,

Adams, M. H., and Goebel, W. F., synthesis of a new dimethyl-B-methyl-

synthesis of a significant glucoside, II, 5. and Goebel, W. F., chemoimmunological studies on soluble specific substance of proumococcus. V. Structure of T. 211 type III polysaccharide, II, 241.

and Munro, J., determination of pentoses,

II. 80.

See also Adams, M. H.

Reforzo Membrives, J., thyroid-depressant effect of hypophysis in animals treated with thyroid, III, 187.

Regener, V. H. See Rossi, B.

Rehbinder, P., and Aron, J. B., effect of adsorbed substances—hardness strength) reducers—on mechanical strength of quartz sediments in water, I, 232.

Rehbock, D. J., Oldt, M. R., and Dixon, H. M., effect of exposure to high oxygen tension on lungs and heart of rat, III,

Rehfuss, M. E. See Nelson, G. M.

Rehn, E., operations on tumours and their carriers, III, 281.

Reiber, H. G., and Stewart, T. D., tetraalkylmethyleneammonium salts, II,

See also Keefer, R. M.

Reich, C., crymotherapy; hæmatology, III, 531.

Reich, H., choledochal denervation, III,

See also Gätzi-Fichter, N.

Reich, N. E., phenolphthalein test for gastro-intestinal lesions, III, 362.

Reichardt, C. H. See Smith, H. A. Reichel, J. See Strumia, M. M.

Reichel, L., biological synthesis of fat, III,

Reichelt, E., vitamin effect of Bact. bifidum, dry yeast, and Bact. coli, III, 373.

Reichle, H. S. See Garvin, C. F., and Mangun, G. H.

Reichrudel, E. M., and Spivak, G. V., contraction of plasma in a magnetic field, I, 186.

Reichsman, F. See Thomas, C. B.

Reichstein, T., and Arx, E. von, 12-hydroxy- and 12-keto-pregnane derivatives, II, 140.

and Fuchs, H. G., constituents of the adrenal cortex and related substances. XXXIV. Deoxycorticosterone and other pregnane derivatives from ætiolithocholic and 3(\$\beta\$)-hydroxyætio-cholanic acid. XXXVI. Double linking in corticosterone. XXXVII. Reductive removal of 21-hydroxyl group of corticosterone and analogous ketols, II, 140.

Reichstein, T., and Grüssner, A., polyhydroxy-acyl derivatives of  $\beta$ -alanine, IĬ, 122.

and Rosenmund, II., isolation of crystalline, cardiac glucoside from Adonis vernalis and its identification as

cymarin, III, 819.

and Schindler, W., constituents of adrenal cortex and related substances. XXXV. Phosphoric and p-toluenesulphonic esters of deoxycorticosterone and related substances, II, 140.

See also Euw, J. von, Gätzi-Fichter, N., Grüssner, A., Prins, D. A., Ruzicka, L., Schindler, W., and Shoppee, C. W.

Reid, A. C., tuberculosis. I. Pulmonary tuberculosis in applicants for employment. III. Management of employee with pulmonary tuberculosis, III, 298, 467.

Reid, C. See Emeleus, H. J.

Reid, Charles, protein catabolism and protein sparing under adrenaline, III, 602.

Reid, E. B. See Halford, J. O.

Reid, J., hæmorrhagic thrombocythæmia, III, 244. Vitamin-K in hepatic and

biliary diseases, III, 646.
Reid, J. A. (London). See Fraenkel, G.
Reid, J. A. (Toronto), albite and gold, I, 492. Reid, L. Corsan, cellular respiration, III, 30. and Brace, D. F., irritation of respiratory tract and its reflex effect on heart, III, 564.

Reid, Lewis C. See Yoe, J. H.

Reid, M. R., use of clinical material for investigation of gastric ulcers, 111, 591.

Reid, W. A. See Adkins, H. Reif, E. C. See Schulte, J. W.

Reifenstein, E. C., jun., and Davidoff, E., benzedrine sulphate therapy, III, 915.

Reifenstein, G. H., Ferguson, J. H., and Weiskotten, H. G., hourly leucocyte variations of normal rabbits, III, 728. Neutrophilic leucocytosis following intravenous injection of supernatant fluid from a sterile exudate (rabbit), III, 728.

Reifer, I., micro-determination of betaine and choline, II, 387.

See also Melville, J.
Reifman, A. See Deuel, H. J., jun.

Reilly, J., Kelly, D. F., and O'Connor, (Miss) M., distribution of nicotine between trichloroethylene and water, I, 254.

See also Curtin, T.

Reilly, L. V. See Wilson, W. J. Reimann, S. P., and Hall, E. M., protective action of thiol compounds against 1:2:5:6-dibenzanthracene, III, 113.

Reimer, (Miss) M., and Morrison, (Miss) A. L., addition reactions of a-keto-acids. VII., II, 102.

Reindel, W., antagonism in acidity of saliva and gastric juice, III, 876.

Reinecke, R. M. See Samuels, L. T. Reineke, E. P., Williamson, M. B., and Turner, C. W., utilisation of plasma-glycoprotein by lactating mammary gland, III, 763.

Reiner, L., and Lang, E. H., insulin azoderivatives, III, 757.

See also Lang, E. II. Reiner, M., and Weiner, S. B., jaundice in infants and in children, III, 649. See also Sobotka, H.

Reinhardt, W. O., and Holmes, R. O., thymus and lymph nodes following adrenalectomy and maintenance with sodium chloride in rat, III, 573.

Reinhart, F. E. See Winter, H. C.,

and Woodward, G. E.

Reinhart, H. L., Reel, P. J., and Shinowara, G. Y., evaluation of urinary quantitative pregnanediol determination, III, 1010.

Sec also DeLor, C. J., and Doan, C. A. Reinhart, W. H. Sec Neal, P. A.

Reinhold, J. G., Flippin, H. F., and Domm, A. H., absorption, distribution, and excretion of 2-sulphanilamidopyrimidine(sulphapyrimidine, sulphadiazine) in man, III, 459.

Schwartz, Leon, Flippin, H. F., and Bethlahmy, S., permeability of red blood cells to sulphathiazole, III, 692.

Sec also Flippin, II. F. Reinov, N. See Apin, A.

Reis, A., action of veritol, III, 127.

Reiser, R. See Smith, S. G.

Reisman, H. A. See Coe, M.

Reiss, C., effect of anæsthetics on bloodascorbic acid, III, 294.

Reiss, E., intravital protection against intravenously injected bacilli in immunised and normal rabbits, III, 393.

Reiss, .H., pityriasis rosea following injection of antidiphtheritic vaccine, III, 928.

Reiss, M., sex hormones in psychiatry, III, 666.

See also Golla, Y. M. L., Hemphill, R. E., and Macleod, L. D.

Reissner, E., theory of elasticity of nonisotropic materials with applications to problems of bending and torsion, I, 35.

Reiter, D. O., extraction of a precipitable substance from the genus Brucella, III,

Reitler, R., action of acetylcholine on specific precipitation, III, 215.

and Marberg, K., sulphapyridine in acute bacillary dysentery, III, 610.

Reitlinger, S. A., effect of ultra-violet radiation on gelatin films, I, 14.

Reivere, R. See Vold, R. D. Remington, J. W., Collings, W. D., Hays, H. W., and Swingle, W. W., assay of renin, III, 562.

Sec also Swingle, W. W.

Remlinger, P., and Bailly, J., comparison of fast and slow desiccation of virus of rabies and of Aujeszky's disease, Ill, 935.

Rémy, H. See Jorissen, W. P.

Renaux. E., and Alexander, J., effect of olive oil or phloridzin on positive Forssman reaction of dog kidney, III, 936. Rendich, R. A., and Harrington, L. A.,

Roentgen findings in 4 cases of caisson disease, III, 176.

Renfrew, (Miss) A. G., and Butler, C. L., cinchona alkaloids in pneumonia. VIII. Sulphur derivatives of apocupreicine ethers and aminoquinolines, II, 79.

See also Clapp, (Miss) M. A. Rennebaum, E. H. See Martin, G. J.

Renner, M. J., full term abdominal preg nancy with living mother and child [delivered by laparotomy], III, 875.

Rennie, A. T. See Pakenham-Walsh, R.

Rennie, J. B. See Fraser, T. N. Renselaer, E. H. See Barlow, O. W.

Renshaw, B., activity in simplest spinal reflex pathways, III, 253. Influence of discharge of motoneurone on excitation of neighbouring motoneurones, III, 983. Renshaw, R. J. F. See Thomas, J. W.

Rentschler, H. See Karrer, P.

Repeiue, E. See Barbilian, N. Repetto, O. See Modern, F

Reploh, H., and Gärtner, H., sterilisation of water of increased salt content and sea-water, III, 390.

Resnitschenko, M. S., structural formula of albumin molecule, II, 114.

Resta, L. S. See Rojas, P. Rettger, L. F. See Gillespie, H. B., and Gillespie, R. W. H.

Reuben, B. S. See Gerlough, T. D. Reuter, A. See Hangleiter, F.

Reuter, (Miss) M. A. See Stimson, (Miss) M. M.

Reutt, A. See Volnov, J. N.

Revell, A. J., diabetes, III, 525.

Rex-Kiss, B. See Went, S. Rexford, D. R., distillation of foaming

solutions under vacuum, I, 179. Rey, E. See Ruzicka, I..

Reyersback, G., and Lenert, T. F., infectious mononucleosis without clinical signs or symptoms, III, 645.

Reynolds, C., Schenken, J. R., and Veal, J. R., pathological findings in mice after pentothal narcosis, III, 218.

Reynolds, D. L., contact metamorphism by a tertiary dyke at Waterfoot, Co. Antrim, I, 62.

Reynolds, S. R. M., physiology of the uterus, III, 64. Dermovascular action of æstrogen, III, 675.

and Foster, F. I., acetylcholine-equivalent content of vagina and vulva of ovariectomised rabbits before and after administration of estrogen, III, 101.

Kaminester, S., and Schloss, S., menstruation-like bleeding with constant cestrogen dosage in ovariectomised woman, III, 268.

See also DiPalma, J. R.

Reznitschenko, M. S., Kozmina, N. P., and Staroselski, P. J., two stages in proteolysis of gelatin, III, 623. Rezvaja, K. I. See Belozerski, N. A.

Rhea, H. E., electron microscope, I, 391,

Rhea, L.J. See Patch, F.S.

Rheinwald, U., influence of combined calcium and vitamin-D therapy on growth and tooth-forming power, III, Ĭ20.

Rhind, E. G. G., and Wilson, A., diabetes mellitus in Addison's disease, III, 1005.

Rhines, R., and Windle, W. F., early development of medial longitudinal bundle in rat, cat, and man, III, 953.

Rhoades, R., pre-pleistoccne initiation of deep solution in the lower Tennessee Valley, I, 488.

Rhoades, R. P. See Yeakel, E. H.

Rhoads, C. P., gastric cancer as sequel to gastritis, particularly gastritis of pernicious anæmia, III, 591.

See also Bomford, R. R., and Sugiura, K. Rhoads, J. E. See Ravdin, I. S.

Rhoads, P. S., Hoyne, A. L., Levin, B., Horswell, R. G., Reals, W. H., and Fox, W. IV., treatment of pneumococcal meningitis, III, 291. See also Winters, W. L.

Rhoads, T. F., Rapoport, M., Kennedy, R., and Stokes, J., jun., growth and development of male children receiving evaporated milk; effect of vitamin supplements on growth in length and incidence of rickets, III, 1031.

Rhode, C. S. See Gaines, W. L. Rhodes, P. H., Conant, N. F., and Glesne, L. R. B., histoplasmosis, III, 798.

Ri, T., bone marrow vessels of toads, III, 81. Common properties of snake poisons of Formosan Crotalinæ on change of rabbit's blood-sugar, III,

See also Magee, J. L.
Riabtschikov, D. I., reaction of thiosulphate with isomeric compounds of bivalent platinum, I, 174. Mixed platinum triammino thiosulphates, I,

Rial, E. J. See Clements, F. W., and Slater, E. C.

Riazantzev, V. N. See Tschurbakov, A. N. Ribak, P. J., Guli, M. F., Grebinnik, L. I., and Novikova, S. I., effect of acid and alkaline rations 🕏n metabolism and clinical indices of horses during work, III, 700.

Ricci, J. E. See Hill, A. E. Rice, E. C. See Lindsay, J. W.

Rice, L. See Dorfman, A.

Rice, M. M. See Pearson, B.

Rice, O. K., entropy of fusion of argon, I, 106. Interatomic potential curve and equation of state for argon, I, 106. Recombination of iodine and bromine atoms, I, 244.

See also Haden, W. L., jun. Ricewasser, J. C. See Hess, J. II., and

Poncher, H. G. Rich, G. T. See Fleisher, M. S. Rich, M. L. See Moss, H. K.

Richard, G., heredity of arterial hypertension, III, 80.

Richard-Foy, R. See Leprince-Ringuet, L. Richards, D. W., nasal catheter for use in

oxygen therapy, III, 849. Richards, F. J., plant nutrition. Effect on growth of rubidium with low potassium supply; modification of this effect by other nutrients. Effect on total dry weight, III, 940. representation Diagrammatic physiological and other experiments designed factorially, III, 1083.

and Sheng-Han, S., plant nutrition. X. Content of barley leaves as determined by interaction of potassium with other nutrients; relation between water content and composition of leaves, III, 57.

Richards, H. T., photographic plate spectrum of neutrons from disintegration of lithium by deuterons, I, 313.

See also Bennett, W. E.

Richards, L. A. See Wilson, H. A. Richards, L. M. See Adkins, H. Richards, O. W., staining of acid-fast

tubercle bacteria, III, 806. and Miller, D. K., identification of M. tuberculosis with simple fluorescence

microscope, III, 629.
Richards, R. K., sulphapyridine overdosage; antidotal action of hypnotics in animals, III, 786. Toxicity of theophylline-ephedrine-barbiturate mixtures, III, 918.

See also Fantus, B.

Richards, T. L., applications of X-ray technique to study of preferred orientation of crystals in metals, I, 325.

Richards, W. See MacGregor, R. G. S.

Richardson, A. M. See Albright, F.
Richardson, A. P., effects of continued administration of sulphanilamide on blood, III, 214. Effect of sulphur company pounds in diet on sulphanilamide cyanosis and anæmia, III, 692.

Richardson, E. G., optical properties of colloidal suspensions in relation to measurement of particle-size frequency,

Richardson, E. II., jun., physical allergy and "auto-antigens," III, 397.

Richardson, G. A. See Tarassuk, N. P. Richardson, G. M. See Morton, A. A. Richardson, G. O. See Herbert, F. K.

Richardson, J., and Elliott, N., magnetic susceptibilities of complex cyanides with transition element cations, 1, 198. Richardson, J. C., and Hyland, II. H.,

intracranial aneurysms, III, 653.

Richardson, J. R., y-radiation from longlived yttrium, I, 442.

Richardson, L. R., Hogan, A. G., Long, B., and Itschner, K. I., number of vitamins required by rat, III,

See also Hogan, A. G.

Richey, D., relative value of 2% and 5% brilliant-green-bile confirmatory media, III, 536.

Richman, C. See Peters, B. Richmond, M. S., Satterfield, G. H., Grinnels, C. D., and Dann, W. J., ascorbic acid content of goat's milk and blood; influence of ascorbic acid injection and diet, III, 27.

Richmond, W. E., crystal chemistry of phosphates, arsenates, and vanadates of the type  $A_2XO_4(Z)$ , I, 64. X-ray crystallography of shortite, I, 490. and Wolfe, C. W., crystallography of dolerophanite, I, 134.

Richou, R. See Ramon, G. Richter, C. P., behaviour and endocrine regulators of internal environment, III, 348. Sodium chloride and dex-trose appetite of untreated and treated adrenalectomised rats, III,

and Campbell, K. H., taste thresholds and taste preferences of rats for five

common sugars, III, 92. and Schmidt, E. C. H., jun., increased fat and decreased carbohydrate appetite of pancreatectomised rats, III,

See also Schmidt, E. C. H., jun. Richter, D., action of adrenaline in anxiety, III, 95.

Richter, F., determination of carbon dioxide. I., I, 427.

Richter, I. M. See Brown, C. E.

Richter, M., subjective "Va-true" photometry, I, 431. Rickard, E. R. See Eaton, M. D.

Ricketts, H. T., constancy of action of protamine zinc insulin, III, 350.

Rickmann, L., collapse therapy in pulmonary tuberculosis, III, 848.

Riddle, E.H. See Marvel, C.S. Riddle, J.W., Spies, T.D., and Hudson,

N. P., interrelationship of deficiency diseases and resistance to infection, III, 597.

Riddle, O., lactogenic and mammogenic hormones, III, 574.

See also Bates, R. W., Lahr, E. L., and Schooley, J. P.

Rideal, E. K. Sce Alexander, A. E., Coumoulos, G. D., Eirich, F. R., Eley, D. D., and Sebba, F.
Ridenour, L. N., "magic eye" ionisation

gauge, 1, 223. and Harnwell, G. P., vacuum packing for

valves, I, 283. Ridge, G. K. See Moore, F. J. Ridgway, R. R., Drummond, J. C., and Wright, M. D., biological activity of oxidation products of a-tocopherol, 111, 287.

See also Drummond, J. C.

Ridland, G. C., mineralogy of Negus and Con mines, Yellowknife, N.W. Territories, Canada, I, 226.

Riebsomer, J. L., Larson, R., and Bishman, L., composition of fatty oil from Carya

cordifornia nuts, III, 542.

Riedel, L., determination of specific heat of liquid ethyl chloride and methylene chloride, I, 248.

Riedl, J., range-groups of natural H rays, I. 23.

Riegel, B., Smith, P. G., and Schweitzer, C. E., 2-methyl-1:4-naphthaquinol di- $\beta$ -D-glucoside, 1I, 242.

Riegel, E. R., and Hathway, (Miss) M., constitution of the condensation product of furfuraldehyde and aniline (Schiff's base), II, 330. Rieke, C.A. See Mulliken, R.S.

Rieman, W., 3rd., quantitative separation of dyes, I, 307.

Riemerschmid, G., and Scheurer, O., effect of partial baths on skin temperature [and blood flow], III, 335. See also Scheurer, O.

Rienäcker, G. [with Wittneben, H., and Bade, H.], activation energy in heterogeneous catalysis, I, 53.

Ries, J. von. See Ludwig, F.

Rieser, C., spinal anæsthesia and micturition, III, 983.

Riethmüller, K., enterococcal pyuria and treatment with mandelic acid, III, 611.

Rietschel, H., does -C-hypervitaminosis exist? III, 375.

Rigdon, R. H., capillary permeability factor in tissue extracts from normal rabbits, III, 83. Capillary permeability in areas of inflammation produced by xylene, III, 83. Relation of capillary permeability to inflammation, III, 844.

and Chrisman, R. B., jun., effect of a-cestradiol benzoate on local areas of inflammation in skin of rabbit, III,

Haynes, A., and Lipscomb, A., effect of sulphapyridine toxin, III, 785. on staphylococcus

Riggs, D. S., Gildea, E. F., Man, E. B., and Peters, J. P., blood-iodine in patients with thyroid disease, III, 1001.

Riggs, J. K., length of time required for depletion of vitamin-A reserves in range cattle, III, 775.

Riggs, L. A., and Graham, C. H., light adaptation in single photoreceptor unit, III, 11.

Rigler, N. E., and Greathouse, G. A., automatic zero pipette for dispensing sterile culture media, III, 228.

Riker, A. J. See McIntire, F. C., and

Van Lanen, J. M.
Rikovski, V. See Bulanov, P. A.
Riley, J. F., sulphydryl compounds and wound repair, III, 294.

Riley, R. See Smith, F. E., jun. Riley, R. F., Krause, R. F., Steadman, L. T., Hunter, F. E., and Hodge, H. C., cobalt colour reactions of barbiturates, III, 697.

See also Krause, R. F. Rimington, C., amino-acids of phosphopeptone, II, 178.

Rimington, C., and Roets, G. C. S., chemical investigation of Acalypha indica; isolation of triacctonamine, a glucoside of hydrocyanic acid, and quebrachitol, IĬI, 15Ŏ.

and Rowlands, I. W., serum-gonadotropin. I. Preparation of stable concentrate from pregnant mares' scrum, III, 764.

Rin, S., habit formation of sinomenine hydrochloride, III, 131.

Rinehart, J. F., Williams, O. O., and Cappeller, W. S., adenomatous hyperplasia of adrenal cortex associated with essential hypertension, III, 845. See also Greenberg, L. D.

Rinehart, J. S., behaviour of Young's modulus of \$B-brass single crystals at low temperature, I, 198.

Ringel, S. J. See Horn, M. J.

Ringo, R., velocity spectrum of a-particles, I, 67.

Ringrose, R. C., and Morgan, C. L., effect of green feed on interior egg quality, III, 22.

Rinkel, M., and Myerson, A., pharmacology in experimental alcoholism. I. Effect of sympathomimetic substances on blood-alcohol level in man, III, 295. See also Loman, J.

Rinvik, R., congenital pyloric stenosis, III, 200.

and Syrrist, A., congenital anodontia with abnormalities of the dermal system (ectodermal imperfection), III, 66.

Rinzler, S. See Ralli, E. P. Riopelle, J. L., teratoma of ovary, with segment of vertebral column and remnants of notochordal tissue, III, 442.

Ripan-Tilici, R., argentometric titration of cyanide ion with diphenylcarbazone as indicator, I, 279. Volumetric determination of nickel ions with potassium cyanide, and diphenylcarbazone as colour indicator, I, 281.

Riseman, J. E. F., and London, S. B., modification of chemistry and pharmacological action of cardiac glucosides, III, 216.

Riser, R. O., marble bones and optic atrophy, III, 866.
Rishova, R. V., thermal denaturation of

proteins, I, 45.

Rising, L. W. See Haendler, H. M. Risley, P. L., intersexual gonads of turtle

embryos following injection of male sex hormone, III, 67. Observations on hermaphroditism in turtles, III, 487. Riss, I. G., and Slutzkaja, M. M., decom-

position of the fluorosilicate ion by alkali, I, 474.

Zajarni, A. E., and Zelianskaja, A. I., preparation of crystalline chromic anhydride from calcium chromate, I, 424.

Risser, A. F., sulphapyridine in capillary bronchitis, III, 905.

See also Feldman, F. M.Risser, W. C. See Carter, H. E.

Ristić, S., safety valve to prevent return of water in water pumps, I, 60.

Ritchie, B. See Albert, A. Ritchie, E. See Lions, F.

Ritchie, G., metastatic tumours of myocardium, III, 1030.

Ritchie, W. S. See Moore, E. L. Ritov, S. M., and Judkevitsch, F. S., reflexion of electromagnetic waves by a layer with negative dielectric constant, I, 444.

Rittenberg, D., and Waelsch, H., source of carbon for urea formation, III, 212. See also Bloch,  $K_{\cdot \cdot}$ , Chargaff,  $E_{\cdot \cdot}$ , and

Waelsch, H. Ritter, J. A., fractional gastric analysis in newborn, III, 877.

Ritter, J. J. See Sharefkin, J. G.
Rittner, E. S. See Schumb, W. C.
Ritz, N. D., Samuels, L. T., and Addiss, G.,

effect of salicylates and carvone on ascorbic acid content of animal tissues, III, 287

Ritzman, E. G. See Lee, R. C. Ritzmann, J. R. See Wintersteiner, O. Riven, S. S. See Blalock, A.

Rivera, V. See Sagastume, C. A.

Rivers, A. B., and Smith, L. A., gastritis simulating peptic ulcer, III, 200. See also Vanzart, F. R.

Rivers, T. M. See Hoagland, C. L., and Smadel, J. E.

Rivett, L. C., and Quayle, G., administering continuous intravenous anæsthesia for abdominal surgery, III, 129.

Rivkin, M. See Kornfeld, M. Rivlin, R. S., grinding and scratching crystalline surfaces, I, 132. refraction patterns. I., I, 322. Optical

Rivoir, L., and González Barredo, J. M., chemical analysis by X-rays. III. III. Appropriate voltages for determination by direct comparison, I, 306.

Riwchun, M. H., albino with senile cataracts, III, 864.

Rizet, G., diverse "sex" forms in Podo-

spora minuta, III, 190. Roach, F. E. See Lyddane, R. H., and Toomey, J. A.

Roach, P. G. See Clark, G. L. Roach, W. A. See Hill, H.

Roaf, H. E. See Hay, J. C.

Robards, E. M., cestrogenic hormone therapy in presenile and manic depressive psychosis, III, 861. Robb, G. P. See Steinberg, I.

Robb-Smith, A. H. T., fat embolism and brain, III, 989.

Robbie, IV. A., action of cyanide on eggs and embryos of grasshopper, III, 780. See also Evans, T.C.

Robbins, B. R., Baxter, J. H., jun., and Fitzhugh, O. G., barbiturates in preventing irregularities under cyclopropane or morphine and cyclopropane anæsthesia, 111, 129.

Robbins, I. L., problems of old age and their treatment, III, 770.

Robbins, W. J., growth-substances and gametic reproduction by Phycomyces, ĬII, 541.

and Hammer, K. C., effect of potato extracts on growth of Phycomyces, III,

Roberson, J. H., Mack, J. E., and Harrison, G. R., interactions in the tungsten atom, W 1, in a magnetic field, I, 138.

Robert, J. See Mutsaars, W., Roberts, A. See Deutsch, M., and Hertz,

Roberts, D., dental comb of lemurs, III, 158.

Roberts, E. A. H., post-mortem darkening of plant tissues and its relation to respiration, III, 1083.

and Sarma, S. N., tannins as hydrogen carriers in biological oxidation, III,

See also Barua, D. N., and Deb, S. B.Roberts, E. R., polarographic behaviour of histidine and other amino-acids, I, 379.

Roberts, J. E. H., oxygen therapy, III,

Roberts, J. K., interactions of gases with metals and crystalline solids, I, 172. See also Miller, A. R.

Roberts, K. C. See Heilbron, I. M. Roberts, L. B., petrified wood composed of iron oxide, I, 434.

Roberts, L. C. Sec Alyea, E. P. Roberts, L. D. See Xan, J. Roberts, N. F. See Harper, A. F. A. Roberts, E. A. O'D. See Owen, E. A.

Roberts, O. L., Brownscombe, E. R., and Howe, L. S., constitution diagrams and composition of methane and ethane hydrates, I, 377.

Roberts, R. F. See Haslam, J. Roberts, R. M., and Kirkwood, J. G., activity of glycine in aqueous solutions of potassium chloride, from electro-motive force measurements, I, 336.

See also Boyd, W. C., Conn, J. B., and Dole, M.

Roberts, W. L. See Campbell, H. A.
Robertson, A. See Dryerre, H.
Robertson, C. W., meningitis due to
B. friedlander [treated with sulpha-

pyridine], III, 906.

Robertson, H. É., pathology of Brunner's glands, III, 362.

Robertson, H. R. See Gurd, F. B. Robertson, J. D., calcium and phosphorus studies in myxædema, III, 1002. Calcium and phosphorus studies in thyrotoxicosis, III, 1003. Calcium and phosphorus studies in parathyroid tetany, III, 1003. Calcium and phosphorus studies in normal people, III, 1042.

See also Beaumont, G. E., and Patey, D. H.

Robertson, J. M., and Dawton, R. H. V. M., photometry of X-ray crystal diffraction diagrams, I, 348.

See also Hampson, G.C., and Lonsdale, K.Robertson, M., and Keppie, J., in-vitro production of toxin from strains of Cl. welchii recently isolated from war wounds and air raid casualties, III, 928.

Robertson, O. H. See Hamburger, M. Robertson, R. C., and Chang, T. L., malaria survey in western Yunnan, Lungling area, and Lushih county, III,

Robertson, W. v. B., Ropes, M. W., and Baner, W., degradation of mucins and polysaccharides by ascorbic acid and hydrogen peroxide, III, 1022.

Robey, M. See Simonnet, H.
Robey, R. F., Morrell, C. E., and Wiese,
H. K., reaction between maleicanhydride and isomerides of piperylene, II, 117.

Robinow, M., and Hamilton, W. F., blood volume and extracellular fluid volume of infants and children, III, 160.

Robins, A. B., supervision of children in contact with tuberculosis, III, 805.

Robins, L. See Lindsay, J. W.

Robinson, (Lady), variable colours of flower petals, III, 151.

See also Robinson, (Sir) R.

Robinson, A. L. See Frank, H. S., and Wallace,  $W.\ E.$ 

Robinson, A. R., thyrotropic and antithyrotropic factors in types of thyroid disease, III, 757.

Robinson, B. B., and Matchett, J. R., marihuana investigations. III. Effect of region of growth of hemp on response to acid and alkaline Beam tests, III, 57.

Robinson, C. S., Stewart, D. E., and Luckey, F., changes in composition of solutions of calcium chloride and lactate in intestine, III, 363.

See also Mason, M. F.

Robinson, D. W., persistent common atrioventricular ostium in child with mongolism, III, 952.

Robinson, E. J., and Climenko, D. R., effects of inhalation of benzene vapour on red blood cells of rabbits, III, 791.

See also Tobie, W. C.Robinson, F. H., jun., and Farr, L. E.relation between clinical cedema and excretion of an anti-diuretic substance in urine, III, 108.

Robinson, G. D. Sec Simpson, (Sir) G. Robinson, G. M. See under Robinson, (Lady).

Robinson, G. W., jun., non-effectiveness of metrazol therapy in schizophrenia, III,

Robinson, H. E. See Frederick, L. D. Robinson, H. W., and Hogden, C. G., effect of serum-proteins on light absorption of phenol-red in phosphate buffer solution, III, 300. Gravimetric determination of serum-proteins, III, 968.

Robinson, J. W., jun. See Fuson, R. C. Robinson, M., comparison of breast-feeding in ten classes of the population, III, 592.

Robinson, P., serum-potassium in gastro-enteritis, III, 76.

See also Meyer, L. F.

Robinson, (Sir) R., and Robinson, (Lady), colloid chemistry of leaf and flower pigments; precursors of anthocyanins, III, 151.

and Seijo, E. [with Litvan, F.], synthesis of substances related to sterols. XXXVIII. Ethyl cyclohexane-1:4dione-2-carboxylate and other intermediates, II, 365.

and Slater, S. N., synthesis of substances

related to sterols. XXIX., II, 295. and Weygand, F., synthesis of substances related to sterols. XXX., II,

and Willenz, J., synthesis of substances related to sterols. XXXII., II, 295.

See also Bateman, L. C., Cook, J. G., King, L. E., Koebner, A., McGinnis, (Miss) N. A., Porter, J. C., and Price, J. R.

Robinson, R. A., thermodynamic study of bivalent metal halides in aqueous solution. V. Activity coefficients of cadmium chloride and bromide at 25°. VII. Activity coefficient of barium bromide at 25°, I, 15, 114. Activity coefficients of sodium and potassium fluorides at 25° from isopiestic vapour pressure measurements, I, Activity coefficient of calcium nitrate in aqueous solution at 25° from isopicstic vapour pressure measurements, I, 265. Activity coefficients of sodium and potassium thiocyanate

in aqueous solution at 25° from isopiestic vapour pressure measurements, I, 265

and Stokes, R. H., thermodynamic study of bivalent metal halides in aqueous solution. VI. Activity coefficients of manganese, cobalt, nickel, and copper chloride in aqueous solution at 25°, I, Robinson, R. A., Wilson, (Miss) J. M., and Stokes, R. H., activity coefficients of lithium, sodium, and potassium sulphate and sodium thiosulphate at 25° from isopiestic vapour pressure measurements, I, 265. See also Harned, H. S., and Stokes, R. H.

Robinson, R. J., perchloric acid oxidation of organic phosphorus in lake waters, I, 386.

Robinson, S. See Dill, D. B. Robinson, S. C., hypertension in relation to height, III, 496.

and Brucer, M., body build of male ulcer patient, III, 102.
Robinson, T. W., and Stier, T. J. B.,

formation of auxin in yeast cultures, III,

Robinson, W. D. See Field, H., jun., and Melnick, D.

Robinson, W. H., effect of an electric field of strength  $-1/2aF^2$  on polarisability constant of normal hydrogen atom, I,

Roblin, R. O., jun., Williams, James H., and Anderson, George W., chemotherapy. III. Sulphones, II, 288.

Robscheit-Robbins, F. S., Madden, S. C., Rowe, A. P., Turner, A. P., and Whipple, G. H., hæmoglobin and plasma-protein, III, 551.

Robson, G. B. See Cutting, W. C.

Robson, J. M., and MacPherson, A. I. S., rate of disappearance of pituitary gonadotropin from blood of rabbits, III, 267.

and Wallace, A. B., glyccrin-sulphonamide paste for burns, III, 606.

Robson, S., Blackwood, W., and Cookson,

H. A., case of von Recklinghausen's disease with diffuse neurofibromatosis of choroid, III, 866.

Robson, W. See Harvey, D. G. Roby, C. C., Smith, Sidney, and Pfeiffer, C., attenuation of parathyro-prival tetany by previous vagal section above the diaphragm, III, 94. See also Pfeiffer, C.

Roch, M., and Martin, E., neurofibromatosis; periarteriitis nodosa; hypertension, III, 337.

Rocha e Silva, M., histamine in rabbit skin, III, 294.

and Dragstedt, C. A., nature of capillary permeability factor present in tissue extracts, III, 733. Pharmacological effects of trypsin, III, 923. See also Bier, O.

Rochat, R. L., action of vitamin- $B_1$  in amenorrhoea, III, 196. Influence of vitamin- $B_1$  on uterine tonus, III, 359.

Roche, J., and Chouaiech, M. S., reversibility of denaturation of serum-albumin, III, §37.

Roche, M.N. See Denstedt, O.F.Roche, U.J. See Steinberg, I.Rochester, G.D., and Bound, M., absorption of cosmic-ray protons in lead, I, 95. See also Rossi, B.

Rochow, E. G., and Gilliam, W. F., polymeric methyl silicon oxides, II, 189.

Rockwell, G. E., preparation of a slowly absorbed pollen antigen, III, 812. Rockwern, S. S. See Owens, L. B.

Rodda, J. H. See Bergstrom, F. W.

Rodden, C. J., spectrophotometric determination of praseodymium, neodymium, and samarium, I, 430.

Roddy, W. T., frozen section microincineration, III, 827.

Rode, E. J., and Rode, T. V., Ural ferriferous chlorites, I, 284.

Rode, T. V. See Rode, E. J. Rodebush, W. H., entropy of surface formation, I, 245.

Eddy, C. R., and Eubank, L. D., dielectric polariastion in solution. II. Polarisation of alcohols as function of concentration and temperature, I, 251.

and Kretschmer, C., association of phenols, I, 265.

See also Buswell, A. M., Dunlop, E. C., and O'Shaughnessy>M. T.

Rodewald, W., inactivation of melanophore hormone in œstrus, III, 98.

Rodger, T. F. See Wittkower, E.

Rodgers, J., distinction between calcite and dolomite on polished surfaces, I, 92.

Rodionovskaja, E. I. See Savitzki, A. J. Rodler, R., influence of lactic and citric acid-milk feeding on acid-base balance of sucklings, III, 114.
Rodriguez, F. See Lipschütz, A.
Rodwell, F. See Hickling, A.

Roe, E. See Boyland, E. Roe, J. H., Hall, J. M., and Dyer, H. M., relation of nutrition to gastric function. II. Effect of vitamin-C deficiency, III, 1014.

Roeder, C. H., and Day, A. R., benziminazole. I. Mechanism of benziminazole formation from o-phenylenediamine. II. Preparation of 2-a-alkylaminoethylbenziminazoles, II, 150.

Roeder, F., phosphatides in cerebrospinal fluid in schizophrenia, III, 997.

Roeder, G., colour reactions of aliphatic acids, II, 208.

Roeder, K. D., origin of visual rhythms in grasshopper, III, 347. Effect of potassium and calcium on spontaneous activity of isolated crayfish nerve cord, III, 852.

Roehl, E. J., King, C. V., and Kipness, S., solution and diffusion rates in alcoholwater mixutres, I, 162.

Roelofsen, P. A., nitrogen in rain water, I, 392.

Roemer, J. J., and Degnan, W. M., condensation of carbamide with resorcinol,

Roepke, M. H., and Murdock, W. D., effect of variations in technique on rapid or plate agglutination test for Bang's disease, III, 935.

Roeser, W. F., thermo-electric thermometry, I, 177.

Rötger, H., dependence of ultrasonic diffraction patterns of glasses on prismatic form, I, 449.

Roets, G. C. S. See Rimington, C.

Roffo, A. H., carcinogenic benzpyrene obtained from tobacco tar, III, 19 Rogall, E., structure of siliceous membrane

of diatoms, III, 389.
Roganova, O. P. See Kizel, A.
Rogatz, J. L., Schilling blood count in

juvenile lobar pneumonia treated with sulphapyridine, III, 165.

Rogen, A. S., calcium gluconate in cardiac failure: clinical pharmacology and therapeutics, III, 613. See also Morris, N.

Rogers, A. F., lamprobolite, a new name for basaltic hornblende, I, 231.

Rogers, B. G., and Henze, H. R., preparation of 5-phenylhydantoin-5-acetates and -acetamides, II, 376.

Rogers, C. H. See Netz, C. V. Rogers, E. F. See Adams, R. Rogers, E. J. See Benson, L.

Rogers, E. S., and Gooch, M. E., treatment of type I pneumococcal pneumonia with specific serum, III, 803.

Rogers, F. T., jun. See Lyddane, R. H. Rogers, J. C. T. See Gillespie, J. B. Rogers, M. T., and Helmholz, L., crystal

structure of iodic acid. I. 104.

Rogers, R. E., Hirschmann, D. J., and Humfeld, H., growth of Trichophyton interdigitale on wool fabric with and without additional nutritive media, III, 304.

See also Stokstad, E. L. R.

Roginski, S. Z., kinetic principles of isotopic indicators. I., I, 271, 380. Active surface of metallic catalysers, I, 273. Induced radioactivity, I, 286.

and Todes, O. M., dependence of law of size distribution of crystals on crystallisation. I. Dispersion statistics for free growth, I, 81. Transformation of comminuted bodies, I, 271.

See also Ablesova, K., and Breshneva,

Rogoff, J. M., and Cortell, R., adrenaline output from adrenal glands in experimental hyperthyroidism, III, 572.

Stewart, G. N., and Cortell, R., adrenaline secretion from adrenal glands in relation to parathyroid activity, III, 753.

Rogovin, Z., Michailov, N., and Sverdlin, M., structure and properties of cellulose and its esters. XI. Nature of surface reactions in course of esterification of cellulose, I, 403.

Rogozinaki, A., residual current of an ionisation chamber and true conductivity of dielectric liquids, I, 394.

Rohdenburg, G.  $\hat{L}$ , effect of lowered atmospheric pressure on spontaneous tumours in mice, III, 888. Glucose tolerance test in its relation to cancer, III, 889.

Rohner, F., determination of alkaloids by absorption spectrum analysis, III, 235. Modern spectrography, III, 316. See also Zeerleder, A. von.

Rohr, K., agranulocytosis, III, 165. Blood-proteins and bone marrow reticulum, III, 330.

Rohrmann, E. See Marker, R. E., and Whitmore, F. C.

Roine, P., and Erkama, J., changes in  $p_{\rm H}$ during growth of yeast on sulphite waste liquor, III, 924.

Rojansky, V., cosmic rays and comets, I, 69.

Rojas, P., Szepsenwol, J., and Resta, L. S., effect of "curarising" substances on motor end organ, III, 252.

Rokitzkaja, M. S. See Melnikov, N. N. Rolf, D. See White, Harvey L.

Rollefson, G. K. See Anderson, H. W., Atwood, K., and Perlman, M. L.

Rolli, F., treatment of female gonorrhea with sulphathiazole, III, 1045

Rollier, M. A., and Arreghini, E.,  $\gamma$ -phase of lithium-lead alloys, Li10Pb3; stoicheiometry and structure, I, 163.

Roloff, M., Ratner, S., and Schoenheimer, R., biological conversion of ornithine into proline and glutamic acid, III, 122.

Rom, J. See Myers, G. B. Roma, M. See Eichelberger, L.

Romanes, G. J., cell columns in spinal cord of a human fætus of fourteen weeks, III, 155. Development and significance of cell columns in ventral horn of cervical and upper thoracic spinal cord of rabbit, III, 824.

Romano, M. See Cotler, H. Y. Romanoff, A., sensitivity to rat hair, III,

Romanoff, E. B. See Looney, J. M.Romanov, V. M. See Nazarov, I. N. Romanovitsch, S. See Jermolenko, N. F. Romans, R. G. See Martin, W. H.

Romansky, M. J. See McCann, W. S. Romarov, S. A. See Schiffrin, M. J.

Romer, A. S., crossopterygian hyomandibular and brain case, III, 718.

Romig, R. C., and Donahue, C. H., use of avertin in elderly urological patients, III, 1051.

Romney, V. E. Sec Fulton, R. A.

Rona, E., and Scheichenberger, H., artificial radioactivity of easium induced by neutrons, I, 69.

See also Petterson, H.

Ronbeck, A. C. See Schwartz, G. M. Rones, B. See Calvery, H. O.

Roof, J. G., and Blacet, F. E., photolysis of diacetyl in near ultra-violet, I, 276.

and Daniels, F., photolysis of acetaldehydo and ethyl bromide mixtures

at 310°, I, 276.

Roofe, P. G., innervation of annulus fibrosus and posterior longitudinal ligament, III, 254.

Roojen, J. van, intensity of radiation and selective action, III, 44.

Rook, G. See Schwartzman, J.

Rooksby, H. P., and McKeag, A. H., yellow-fluorescent form of zinc silicate, Ī, 343.

Sec also Chirnside, R. C.

Roome, N. W., sympathetic block in peripheral vascular accidents, III, 653. Retroperitoneal pneumography visualise adrenal glands], III, 867. Roos, A., polycystic kidney, III, 365.

Roosen-Runge, E. C., early development of Brachydania rerio, III, 954.

Root, W. S., and McAllister, F. F., circulatory responses of chronic spinal dogs to ether anæsthesia, III, 976. See also Keil, F. C., jun.

Roper, E. E., gas imperfection. I. Determination of second virial coefficients for seven unsaturated aliphatic hydrocarbons. II. Thermodynamic quantities for unsaturated aliphatic hydrocarbons derived from equations of state, I, 35, 160. Precision cryostat for the range -35° to 25°; improved electrical arcuit and a new expansion valve, I, 347. Roper-Hall, H. T. See Brandt, IV.

Ropes, M. W., Rossmeisl, E. C., and Bauer, W., origin and nature of normal human synovial fluid, III, 154.

See also Robertson, W. v. B.

Rosa, L., diagnostic use of cathode-ray tubes, III, 235. Roscoe, R., excitation of hydrogen molecule

by electron impact, I, 237.

Rose, A., mechanical model for motion of

electrons in a magnetic field, I, 358.

Rose, A. R., McCarthy, M. C., Blacker, C., Schattner, F., and Exton, W. G., determination of iron in minute amounts of blood, III, 167.

Schattner, F., and Exton, W. G., determination of blood-cholesterol, III,

Rose, B., production of symptoms by subcutaneous injection of histamine without increase of blood-histamine, III, 464. Blood-histamine in cases of allergy, III, 1079.

Rose, B., and Browne, J. S. L., effect of adrenalectomy on histamine content of tissues of the rat, III, 507.

Weil, P. G., and Browne, J. S. L., concentrated pooled human serum and pooled lyophile serum in treatment of shock, III, 553.

See also Karaty, S.

Rose, C. L. See Bliss, C. I. Rose, C. S. See György, P.

Rose, E., and Wolferth, C. C., reaction following irradiation in hyperthyroidism, III, 1003.

Rose, II., jun., and Boyer, L. B., thrombocytopen, III, 646.

Rose, H. M., Hæmophilus influenzæ type A

endocarditis, III, 1075. and Culbertson, J. T., substitute antigens in diagnosis of echinococcus disease, III, 146.

See also Culbertson, J. T.

Rose, M. E., and Korff, S. A., pro-

portional counters. 1., I, 349. and Ramsey, IV. E., time lags in coincident discharges of Geiger-Müller counters, I, 306.

Rose, S. B. See Flippin, H. F., and Miller, R. E.

Rose, IV. C. C. Sec Dunham, K. C.

Rosen, S. See Shelesnyak, M. C. Rosen, S. R., cerebrospinal fluid total protein in alcoholic psychopathics, ÎII, 344.

Cameron, D. E., and Ziegler, J. B., prevention of metrazol fractures by  $\hat{\beta}$ -crythroidine hydrochloride, III, 256. Rosenbaum, E. E. See Freed, S. C.

Rosenbaum, E. J., vibrations of long-chain molecules; Raman spectra of n-octane, decane, cetane, and eicosane in liquid state, I, 242.

Rosenbaum, H. A., and Faulkner, H. L., acetarsone (stovarsol) in treatment of syphilis in infants and children, III, 1054.

Rosenbaum, I., hypertension in diphtheria, III, 735.

Rosenbaum, I. J. See Orenstein, L. L. Rosenbaum, M., cerebrospinal fluid in

delirium tremens, III, 996.

Rosenbaum, W. M. See Bohlender, G. P. Rosenberg, E. F. See Baggenstoss, A. H. Rosenberg, H. See Topper, A. Rosenberg, N., and Allen, A. C., routine

tuberculin tests, III, 1073. Rosenberg, W. A., hereditary cedema of

legs (Milroy's disease) associated with other congenital anomalies, III, 251.

Rosenblatt, M., and Peluso, J. V., photocolorimetric determination of tannins, II, 180.

Rosenblueth, A., effects of direct currents on electrical excitability of nerve, III,

Reboné, J., and Grass, A. M., action of alternating currents on spike potential magnitude, conduction velocity, and polarisation of nerve, III, 739.

See also Cannon, IV. B., and Parker, G. H. Rosenblüth, M. B., and Stetten, De W., jun., fever therapy in meningococcal septicæmia, III, 859.

Rosenblum, C., upper limit of temperature, I, 96. Isotopes as indicators, I, 174. See also Whitman, N

Rosenblum, H. See Friedman, M.

Rosenblum, M. H., kinked right common carotid artery, III, 952.

Rosenburg, S.  $\dot{A}$ ., and Bayer, H.J., indirect blood transfusion, III, 829.

Rosenfeld, L. See Fine, J.

Rosenfeld, M., native hormones of postpituitary pressor and oxytocic principles, III, 189. Autonomous nervous system and psychical disturbances, III,

Rosenheim, O., pentacyclic steroids, II, 321.

and Webster, T. A., dietary factor concerned in coprosterol formation, III, 1039. Metabolism of  $\beta$ -sitosterol,

Rosenholtz, J. L., and Smith, Dudley T., linear thermal expansion and inversions of quartz, I, 353.

Rosenkranz, G. Sec Ruzicka, L.
Rosenmund, II. Sec Reichstein, T.
Rosenow, G., leucocytosis induced by injection of kaolin into cisterna and ventricles of brain, III, 728.

Rosenthal, A. H. See Gordon, C. A. Rosenthal, C. M. See Seitz, C. P.

Rosenthal, D. B., congenital absence of pectoral muscle, III, 3.

Rosenthal, F. E., cooling drugs and cooling centres, III, 617.

Rosenthal, I. S. See Abuladze, K. C. Rosenthal, L. II., early crythema and pigmentation from superficial Roentgen therapy, III, 921.

Rosenthal, L. M. See Friedell, H. L. Rosenthal, O., Bowie, M. A., and Wagoner, G., interdependence of respiration and glycolysis, III, 212.

Rosenthal, R. L. See Page, R. C

Rosenthaler, L., ascorbic acid as titrimetric standard, I, 385. General carbohydrate reaction, II, 282. Influence of concentration and acid content on crystal form, II, 388.

Roser, F. X., effect of temperature on cosmic radiation, I, 396.

Rosetenberg, A., jun. See Kanof, N. M. Rosi, R. See Winters, W. L.

Rosický, V., crystal projection, I, 452. Morphology of pyrite, I, 489.
Rosinsky, O. E., constitution and crypt-

orchidism, III, 102.

Roslova, N.A. See Petrov, A.D.

Ross, A. F., sulphur distribution in tobacco mosaic virus protein, III, 145. Determination of amino-acids in tobacco mosaic virus protein, III, 538. See also Lauffer, M. A.

Ross, A. M., jun. See Harned, H. S. Ross, A. O. F., toxicity of tryparsamide and neocryl, III, 130.

Ross, A. T., and Jackson, V., action of dilantin sodium on conduct and on psychometric ratings of institutionalised epileptics, III, 615.

Ross, C. P., quicksilver deposits of Terlingua Region, Texas, I, 436. See also Fahey, J. J.

Ross, J. A., and Hulbert, K. F., treatment of

burns with silver nitrate, tannic acid, and gentian-violet, III, 462

Ross, J. F. See Miller, L. M. Ross, J. M., lung hæmorrhages in death from trauma, III, 340.

See also Hadfield, G.

Ross, J. P. See Bourne, G.Ross, J. R., Monypenny, D., and Jackson, S. H., effect of cooking on digestibility of cereals, III, 593.

Ross, M., and Dorfman, R. I., urinary excretion of estrogens and androgens by women with carcinoma of the breast, III, 281. Abortifacient substance in human urines, III, 1021.

Ross, M. A., and Korenchevsky, thymus of rat and sex hormones, III,

See also Benjamin, B., and Ford, N.

Ross, R. H. See Bowling, G. A.

Ross, S. See Clark, G. L. Ross, S. D. See Mason, J. P.

Ross, V., Miller, E. G., jun., and Kurzrok, R., metabolism of human sperm, III,

Ross, W. F., and Christensen, H. N., carbon suboxide and proteins. Nature of reaction. II. Determination of malonic acid, II, 89.

and Green, L. S., carbon suboxide and proteins. III. Reaction of carbon suboxide with amino-acids, II, 89.

and Turner, R. B., hæm-globin linkage of hæmoglobin. III. Analysis of carbon monoxide product; pancreatic digestion of several forms of hæmoglobin, III, 724.

Rosselet, A., evolution of radiology, III, 299.

Rossen, J. A. See Danis, P. G.

Rossenbeck, H., ketones, residual nitrogen, lactic acid, chlorides, and alkali reserve in blood of healthy pregnant women, 111,

Rosser, F. T., washing of Paramecia, III, 535.

Rosset, IV., hormonal action of malignant adrenal cortex tumour on ovary, III,

Rossi, B., and Hall, D. B., variation of rate of decay of mesotrons with momentum, 1, 190.

Jánossy, L., Rochester, G. D., and Bound, M., production of secondary ionising particles by non-ionising agents in cosmic radiation, I, 144.

and Regener, I'. H., production of mesotrons by penetrating non-ionising rays, 1, 145.

Rossier, P. II., and Méan, II., respiratory changes in pulmonary tuberculosis, III,

Rossini, F. D. See Mair, B. J.
Rossiter, R. J., thyroid and brain respiration, III, 256.

Rossman, P. L., capillary resistance in artificially induced fever, III, 82.

Rossmeisl, E. C. See Ropes, M. W. Rossmiller, H. R. See Collins, E. N. Rossum, P. van, antihæmolytic properties

of serum of new-born, III, 165. Rost, J., polyneuritis following

administration of sulphonamides, III, 1047.

Rostagni, A., reflexion of positive rays and release of secondary electrons from metallic surfaces, I, 22.

Rotblat, J., application of coincidence method for measurements of short life periods, I, 141.

Roten, J. L. See Jequier, M. Roth, G. B., pharmacology of sulphanilamide, III, 526.

Sec also Creswell, G. IV.

Roth, H., advances in microchemistry. I. Quantitative organic micro-analysis, II, 385.

Roth, L. W. See Andrews, A. H.

Roth, O., treatment of cold urticaria, III, .

Rothbard, S., Angevine, D. M., and Cecil, R. L., influence of gold sodium thio-malate (myocrysin) on prevention of hæmolytic streptococcus arthritis in rats, III, 789.

Rothberg, A., and Merrill, G. A., boric acid dermatitis, III, 813.

Rothe, H. G., germicidal power of silver compounds, 1II, 611.
Rothemund, P., and Menotti, A. R., porphyrins. IV. Synthesis of aβyδ-tetraphenylporphins, II, 109.

Rothen, A., automatic speed control for the air-driven ultracentrifuge, I, 392. Mol. wt. and electrophoresis of crystalline

ribonuclease, III, 704.
Rothenberger, M. See Plotz, M.
Rothendler, H. H. See Modell, W.

Rothlin, E., late effects of phosgene and treatment of pulmonary odema [use of calcium], III, 84.

Rothman, M. M. See Meranze, T.

Rothman, S., influence of ascorbic acid on oxidation of tyrosine by ultra-violet

light, III, 598.

Rothstein, E., thioacetals and related substances. I. Polar effect of sulphur in thioacetals. II. Reaction between abromopropaldehyde diethyl acetal and ethylthiol. III. Comparison of polar effect of sulphur with that of oxygen and nitrogen, II, 27. Influence of poles and polar linkings on tautomerism in simple three-carbon system. VI. Unbalanced systems, II, 28.

Rotinian, A. L., and Appenin, I. I., redox

potential of iodine, I, 379.

Rotmistrov, M. N., identity of agents responsible for thermophilic and mesophilic fermentations in cellulose, III, 473.

Rottenstein, H. See Kuo, P. T.

Rouer, B., eye in diabetes mellitus, III, 667. Roufogalis, S., interstitial nephritis in scarlet fever [a hyperergic reaction], III,

Roughton, F. J. W., determination of carbon monoxide in blood, III, 969.

Rougichitch, O. S., and Dumitrescu, E. oxidase reaction of human milk, III,

Roulston, K. I., surface motion of sputtered particles, I, 486.

See also Ditchburn, R. W.

Rourke, G. M. See Stewart, J. D.

Rouslacroix, A., and Brahic, J., property of tubercular serum anergic to the tuberculin skin reaction, IIĬ, 933.

Brahic-Veyron, J., and Capmana, cutaneous reactions to tuberculin and histamine, III, 311.

Schafer, E., and Mosser, H., effect of sulphanilamide on diphtheria infection in guinea-pig and on diphtheria bacilli in culture, III, 291.

Roussel, G. See Brocq-Rousseu, D. Routh, J. I. See Clay, R. C. Rovenstine, E.A. See Adriani, J.

Rovno, I. See Thompson, A. F., jun. Row, L. R., and Seshadri, T. R., pyrylium salts derived from 4-o-methylresorcylic aldehyde, II, 373.

See also Neelakantam, K.

Row, T. P., range and variation of normal eye tension and relation between blood pressure and eye tension, III, 667.

Rowan, R. See Clark, G. L.

Rowe, A. P. See Robscheit-Robbins, F. S. Rowe, S. N., treatment of trigeminal neuralgia, III, 858.
Rowe, V. K. See Irish, D. D.

Rowland, V. C. See Woldman, E. E.

Rowlands, I. W., and Williams, P. C., mechanism of action of progonadotropic scrum, III, 189.

Rowlands, I. W. See also Day, F. T., and Rimington, C.

Rowley, H. H., and Anderson, R. B., physical studies of non-aqueous solvates. IV. Solubility of zinc bromide in diethyl ether, I, 409.

See also Innes, IV. B. Rowntree, L. G. See Turnoff, D.

Roy, A. C., azo-compounds of morphine. I., II, 341.

Roy, M. B., colorimetric detection of chlorate ion, I, 425.

Roy-Chowdhury, J. See Rây, P.

Royal Society of Medicine, discussion on ear injuries, III, 182.

Royer, G. L., Alber, H. K., Hallett, L. T., Spikes, W. F., and Kuck, J. A., specifications for microchemical apparatus; carbon-hydrogen and Dumas nitrogen,

Norton, A. R., and Sundberg, O. E., combustion micro-method for carbon and hydrogen, II, 385.

Royster, C. L., Lisa, J. R., and Carroll, J. anatomical findings in heart in combined hypertension and syphilis, III, 842.

Rozanova, V. N. See Figurovski, N. A.
Rozenfeld, E. L. See Schesterikova, T. P.
Rozenfeld, L. E., and Lando, L. I., variations with age of cholesterol and saturated and unsaturated phosphatides in central nervous system of rabbits, III, 745.

and Ruchelman, A. A., enzymes. II. Sulphatase, III, 704.

Rozum, J. S., and Urazovski, S. S., physicochemical study of products of oxidation of adrenaline. I. Isolation of adrenochrome, II, 321.

Rubbo, S. D., and Gillespie, J. M., p-aminobenzoic acid as bacterial growth factor, III, 305.

See also Albert, A.

Ruben, S., and Kamen, M. D., long-lived radioactive carbon, 14C, 1, 188. Photosynthesis with radioactive carbon. IV. Mol. wt. of intermediate products and tentative theory of photosynthesis, III, 314.

Kamen, M. D., and Hassid, W. Z., photosynthesis with radioactive carbon. II. Chemical properties of intermediates, III, 314.

Kamen, M. D., and Perry, L. H., photosynthesis with radioactive carbon. III. Ultracentrifugation of intermediate products, III, 314.

Randall, M., Kamen, M. D., and Hyde, J. L., heavy oxygen (180) as a tracer in study of photosynthesis, III,

See also Carson, S. F., Nahinsky, P., and Overstreet, R.

Rubenfeld, S., and Scott, L. D., X-ray treatment of leukæmias, III, 645. Rubens, S. M. Seo Henderson, J. E

Rubenstein, B. B., and Duncan, D. R. L. assay of cestrogen by human vaginal smears and comparison with urinary assay on mouse uterus, III, 675.

Rubenstein, (Miss) P.J., relative intensities of <sup>1</sup>S—<sup>3</sup>P and <sup>1</sup>S—<sup>1</sup>P transitions in Mg, 1, 65.

Ruberg, L., and Small, L., amino-alcohols derived from carbazole. II., II, 175.

Rubin, B. A., Artzichovskaja, E. V., and Spiridonova, N. S., relationships between oxidation processes in living tissues and changes in their vitamin-C content, III,

Rubin, B. A., Artzichovskaja, E. V., Spiridonova, N. S., and Lutikova, O. T., sources of vitamin-C formation in living plant cell, III, 598. Synthetic action of amylase in living plant tissue. III, 937.

and Spiridonova, N. S., vitamin-C and oxidation capacity of plant tissues, III, 816.

Rubin, H.J. See Weichsel, M. Rubin, M.I., and Rapoport, M., action of magnesium sulphate in reducing hypertension of acute glomerulonephritis, III, 734.

Sec also Rapoport, M.

Rubin, S. H. See Ralli, E. P.

Rubinschstein, A. M. See Nikolaev, A. V. Rubinstein, H. S., and Kurland, A. A., effect of testosterone propionate on rat testis, III, 443.

and Solomon, M. L., effect on body growth of small doses of testosterone propionate administered at different seasons, III, 270. Growth-stimulating effect of small doses of testosterone propionate in castrate rat, III, 353. Growth-depressing effect of large doses of testosterone propionate in castrate rat, III, 354.

Rubinstein, M. N., nitrous oxide and oxygen analgesia in operative dentistry, III,

Rubnitz, A. S., and Harris, A. M., tularæmia, III, 807.

Rubovits, F. E. See Levinson, S. O. Rubtzov, M. V., chemotherapeutic compounds of streptocide series. II., II,

See also Magidson, O. J.

Rubtzova, V. K. See Djatschkovski, S. I. Ruch, M. K. See Koons, K. M.

Ruchelman, A. A. See Rozenfeld, L. E. Ruchin, L. B., granulometrio composition of sands as index of the conditions of their deposition, I, 184.

Rudakov, G. A., catalytic transformations of terpenes. I. Action of activated clay on dipentene, II, 327.

and Eroschevski, I. G., bornyl chloride and its isomerides, II, 370.

Rudberg, T., effect of inhalation of oxygen on increase in respiration following occlusion of carotids, III, 338. Ruderman, E. E. See Boreskov, G. K.

Rudesill, C. L., and Henderson, R. A., normal blood-sugar values in children, III, 331.

Rudnick, P., Slack, F. G., and O'Connor, J., rotatory power of nickel sulphate at low temperatures, I, 77.

Rudolph, H. See Scott, V. B.

Rudra, M. N., manganese in biological synthesis of ascorbic acid; synthesis of indophenol-reducing substances guinea-pig liver in vitro and in vivo, III, **5**98.

Rudtschenko, G. E., carbonyl compounds of the furan series. II. Derivatives of furylacraldehyde, II, 371.

Rudy, C. E., jun., and Fugassi, P., electronic relay, I, 131.

Ruegsegger, A. See Karrer, P. Ruegsegger, J. M., and Cockerell, S. L.,

recurrence in pneumonia, III, 802. nd Hamburger, M., sulphamethylthiazole in pneumococcal pneumonia, III, 905.

See also Hamburger, M.

Ruf, H. W., lead hazards in printing. I., III, 384.

Ruff, G. See Modern, F.

Ruffin, J. M., and Brown, I. IV., effect of inflation of stomach on gastroscopic picture, III, 199. Chronic gastritis as diagnosed by gastroscopy in gastric neuroses, III, 200.

Ruffoni, G. See Jadassohn, W.

Ruggli, P., and Businger, A., a-4-methoxycyclohexylbutyric acid, 11, 252.

and Dinger, A., cis-trans-isomeric stilbenes. V. Stereoisomeric forms of 2:4'-dinitrostilbene; phenanthrene syntheses. III., II, 189. and Grün, F., sulphocarboxylic acids.

I. Acid chlorides of m-sulphobenzoic acid and their reactions with amines

and phenols, II, 225. and Hegedus, B., atom displacement during bromination of o-nitrodiphenylmethane, II, 294.

Leupin, O., and Businger, A., 4-methoxycyclohexylacetic acid, II, 252.

and Schetty, O., heterocyclic nitrogen compounds. XLVII. Condensations with iso- and tere-phthalaldehyde. XLVIII. Synthesis of 2:7-phenanthroline, II, 148, 152.

and Stauble, M., indigosols and their adsorptive behaviour, II, 151.

Rugh, R. See Zimmerman, L.
Ruh, E. L., Walker, R. W., and Dean,
E. W., S.I.L. viscosimeter, I, 391.
Ruhemann, M. See Lu, H.
Ruigh, W. L. See Fernholz, E.

Rulon, O., modifications in development of sand dollar by sodium thiocyanate, III, 721.

Rundle, F. F., pathogenesis of thyrotoxicosis, III, 1002.
Rundle, R. E. See Giguère, P. A.
Runnström, J., Brandt, K., and Marcuse,

R., assimilation of ammonia by baker's yeast, III, 227.

Runov, V. I., and Sverdlina, C., temperature coefficient and activation energy in seeds of tau-saghyz as influenced environmental temperature, III, 481.

Runtzo, A. P. See Jerofeev, B. V. Ruoff, P. M. See Smith, L. I. Ruotolo, B. P. See Elkins, H. B.

Rupe, H., and Zweidler, R., degradation of cineolic acid, II, 68.

Rupel, I. W. See Phillips, P. H.

Rusch, H., loss of body weight of newborn infants, III, 586.

Rusch, H. P., Kline, B. E., and Baumann, C. A., carcinogenesis by ultra-violet rays with reference to wave-length and energy, III, 452. See also Klatt, T.

Rush, A., comparison of fibrinogen and prothrombin levels of maternal and cord blood at delivery, III, 556.

Rush, H. P. See Coffen, T. H., and Youmans, W. B.

Rush, I. A. See Ersner, M. S.

Rushbrooke, G. S., theoretical atomic distribution curve for liquid argon at 90° K., I, 4.

Rushentzev, V. E. See Maximova, S. V. Rushentzeva, A. K., and Delektorskaja, N. M., synthesis of epi-isofenchone from isofenchonequinone, II, 143. II. isoFenchoquinone isoFenchone. and its derivatives, and hydroxyisofenchones, II, 327. and Kedrova, N. K., isofenchone. I.

Hydroxymethyleneisofenchone and its derivatives, II, 172.

Rushton, J. G., Cragg, R. W., and Stalker, L. K., spontaneous hypoglycæmia due to adrenal atrophy, III, 95.

Rushton, M. A., dentinal dysplasia, III, 154. Birefringence of deciduous tooth enamel formed before and after birth, III, 275.

Rusinov, L. I., and Flerov, G. N., fission of uranium, I, 287.

and Juzefovitsch, A. A., nuclear isomerism of bromine, I, 287.

Ruska, H. See Lembke, A. Rusoff, I. I. See Norris, F. A.

Russ, J. D., and Strong, R. A., resuscitation of asphyxiated new-born infant, III, 340. Russ, S., biological effects of y-irradiation, III, 45.

Russel, C. K. See Stewart, O. W.

Russell, A., and Speck, J. C., constitution of natural tannins. VII. Colouring matters derived from  $\beta$ -naphthaldehyde, II, 173.

Russell, A. S., Fontana, C. M., and Simons, J. H., low-velocity hydrogen-ion scattering in hydrogen, water, and ammonia, I, 286.

Russell, D. See Foster, C.

Russell, D. S., and Nevin, S., aneurysm of great vein of Galen causing internal hydrocephalus, III, 89.

Russell, H., classification of gliomas, III,

Russell, H. K., acute toxic necrosis of liver following sulphonamide treatment, III,

and Page, R. C., thrombocytopenic purpura due to sulphapyridine, III, 126.

Page, R. C., Matthews, C. S., Schwabe, E. L., and Emery, F. E., toxicity of dicthylstilbostrol. I., III, 677. See also Page, R. C.

Russell, J. See Powell, L. S.

Russell, J. A., and Wilhelmi, A. E., metabolism of kidney tissue in adrenalectomised rat, III, 378.

Russell, M. A. Sco Weil, L.
Russell, P. B., Todd, A. R., Wilkinson, S.,
Macdonald, A. D., and Woolfe, G.,
Cannabis indica. VII. Relation between chemical constitution and hashish activity, II, 173; III, 616.

Russell, R. S., relation of respiration to amino-acid supply in Elodea, III, 58.

Russell, W. C. See Nield, C. H. Russell, W. R. See Campbell, A. C. P., Denny-Brown, D., and Williams, D. Russell, IV. IV., and Loebenstein, W. V.,

nature of surface of catalytic nickel, I, 52. Rust, F. F., and Vaughan, W. E., hightemperature chlorination of saturated, aliphatic monochlorides, II, 346.

See also Burgin, J. Rutenberg, A. See Linstead, R. P. Ruth, W. A. See Lawrenz, M., and Shields, J. B.

Rutishauser, M. See Fierz-David, H. E.
Rutkovski, L. A., inapplicability of
Tortelli-Jaffé reaction to determination

of vitamin-D, III, \$95.
Rutledge, D. I., venous pressure and circulation time, III, 652.

Rutovski, B. N., and Muliar, P. A., dehydrogenation of borneol in the vapour phase, using activated nickel catalyst, II, 370.

Rutstein, D. D., oxygen therapy in pneumonia, III, 848.

Rutter, A. G., incidence and treatment of vaws in western Solomon Islands, III, 917.

Rutzkov, A. P. Sec Voskresenskaja, N, K.

Ruzette, E. M. See De Haas, J. H.

Ružičič, U. S., and Popović, Z., correlation between fat content of mother's milk and intervals of lactation, III, 360. Ružička, L., from Dalmatian pyrethrum to

sexual hormones, III, 439.

Bernold, E., and Tallichet, A., diterpenes. XLV. Degradation of agathendiacid

with ozone, II, 230. and Brenner, M., triterpenes. LV. Products of oxidation of betulin and betulin diacetate, II, 71.

Brenner, M., and Rey, E., triterpenes. LIX. Converting dihydrobetulin into dihydrobetulonic acid and degradation of the latter in ring A., II, 263.

and Dalma, G., Erythrophleum alkaloids. III. Cassaidine, a second crystalline alkaloid from bark of Erythrophleum quincense (G. Don.) and its relation to cassaine, II, 155.

Dalma, G., and Scott, IV. E., Erythrophleum alkaloids. IV. Coumingine, a crystalline alkaloid from bark of E. couminga (H. Baillon) and its relationship to cassaine, II, 206.

Grob, L., and Raschka, S., steroids and sex hormones. LXV. Preparation of △4-androstene-6:17-dione, II, 106.

and Heinemann, S. D., triterpenes. LVII. 2-Deoxybetulin and 2-deoxyallobetulin, II, 72.

and Kaufmann, S., diterpenes. XLIII. Position of double linkings of l-pimaric acid, II, 69.

and Lalande, W. A., jun., [with Kaufmann, S.], diterpenes. XLIV. Action of ozone and permanganate on additive product of maleic anhydride and l-pimaric acid, II, 70.

and Lamberton, A. H., triterpenes. LVI. Oxidation of betulin mono-acetate and methyl acetylbetulinate with chromium trioxide, II, 72.

Platiner, P. A., and Fürst, A., steroids and sex hormones. LXIX. Relationships of \( \Delta^{5:6-20:22} \cdot - 3:21 \cdot - \dipy \ choladienolactone to uzarigenin, II,

Reichstein, T., and Fürst, A., steroids and sex hormones. LXVI. Preparation of lactones of type of digitalis genins, II, 226.

and Rey, E., triterpenes. LX. Oxidations of alcoholic groups of betulin, II, 263.

and Rosenkranz, G., triterpenes. LIV. Lupenal and lupenalol and their further transformations, II, 71.

and Sternbach, L., diterpenes. XLVI. Dimeric inner ester of tetrahydroxyabietic acid and its further degradation, II, 262.

Sternbach, L., and Jeger, O., diterpenes. XLVII. Halogenotrihydroxyabietic acids and their further transformations

into 8-azaretene, II, 262. and Wirz, W., triterpenes. LVIII. Preparation of epi-β-amyrin from a-boswellic acid and from B-amyrone, II, 231.

Ryan, A. E. See Bartlett, M. K.

Ryan, E. J., and McCullagh, E. P., use of A.T.10 (dihydrotachysterol) in chronic tetany, III, 753.

Ryan, J. D., and Shaw, F. B., jun., polymerisation of  $\beta$ -methylallyl alcohol and its lower aliphatic esters, II, 83

Rydbeck, O., propagation of electromagnetic waves in an ionised medium and calculation of true heights of ionised layers of the atmosphere, I, 4.

Ryerson, C. M. See Nielsen, W. M. Ryland, L. B. See Tamele, M. W. Rymer, M. See Gilbert-Dreyfus. Rymer, M. R., and Ravin, A., dystrophia

myotonica: glucose tolerance tests. III.

Rynearson, E. H. See Hildebrand, A. G. Ryo, S. See Terada, B.

Rytand, D. A., and Holman, E., arterial hypertension and splanchnic nerve section, III, 496.

Rytz, F., serology of syphilis and its evaluation, III, 805.

Sá, A., and Prestera, O. A., purpura hæmorrhagica and avitaminosis-C. III. 835.

Saal, F. von. See Kaufman, R. E.

Saalischvili, S. D., solubility of carbon dioxide from its mixtures with hydrogen and nitrogen in water under pressure, I,

Sabin, A. B., and Aring, C. D., visceral lesions in infectious polyneuritis, III,

and Warren, J., therapeutic effectiveness of non-toxic compound (calcium aurothiomalate) in proliferative chronic arthritis of mice, III, 1055.

Sabine, J. C., choline esterase of blood cells and plasma in blood dyscrasias, with reference to pernicious anæmia, III, 164. Saburova, P. V., physiological needs in

development of an infected ear of wheat (Ustilago tritici), III, 482.

Sachar, L. A. See Elman, R.

Sacharov, B. A. See Skljarenko, S. I.

Sachs, A., Levine, V. E., Anderson, A. C., and Schmit, A., determination of iron and copper in blood serum, III, 492. Levine,  $\hat{V}$ . E., Schmit, A., and Hughes, R., rise in serum-copper following oral administration of copper sulphate,

111, 557. Sachs, É., and Heath, P., pharmacology of intraocular muscles. II. Sensitisation phenomena in dilator and sphineter iridis. III. "Cholinergic" behaviour of dilator iridis, III, 258, 502.

Sachs, G., action of phenolphthalein on insoluble hydroxides, I, 125.

Sachs, H. See Dockeray, G. C., and Hayes.

Sachs, L., changes in chemistry of blood and urine during and after anæsthesia, III, 218.

Sachs, R. G., and Teller, E., scattering of slow neutrons by molecular gases, I,

See also Lyddane, R. H.

Sack, G., lymphatic leukæmia with normal bone marrow, III, 72. Purpura, III, 83. Use of heparin in hæmatocrit, III, 647.

Sacks, J., Maier, N. R., and Glaser, N. M., influence of metrazol on "neurotic pattern" in rats, III, 915.

Sacks, M. S., and Hachtel, F. W., bacteriological culture of bone marrow in typhoid fever, III, 538.

Sackter, (Miss) E. See Pickett, (Miss) L. W. Sadikova, N. V., effect of sodium carbonate on solutions of amino-acids at high temperatures and pressures, III, 797.

Sadle, A. See Williams, J. W.

Sadusk, J. F., Blake, F. G., and Seymour, A., absorption, excretion, diffusion, and acetylation of sulphathiazole in man, III, 292.

and Nielsen, A. E., sulphathiazole in staphylococcal meningitis, III, 460.

and Tredway, J. B., absorption, excretion, diffusion, and acetylation of sulphadiazine in man, III, 785.

Waters, L., and Wilson, D., anuria from sulphapyridine calculi, III, 461.

Saker, G., ancurin in cerebrospinal fluid, III, 344.

Saenz, A., and Canetti, G., reappearance of allergy in guinea-pigs reinfected after spontaneous desensitisation, III, 936.

Saffe, O. See Andress, K. R. Saffer, C. M. See Schumb, W. C.

Safford, V., asphyxiation of marine fish with and without CO2 and its effect on gas content of swim-bladder, III, 84

Saffry, O. B., Cox, H. S., Kunerth, B. L., and Kramer, M. M., biological assay of riboflavin in liver of cow, calf, sheep, lamb, and hog, III, 26.

Safir, S. R. See Bachmann, W. E., and Blicke, F. F.

Sagane,  $R_{\cdot,\cdot}$ , Miyamoto,  $G_{\cdot,\cdot}$ , and Ikawa,  $M_{\cdot,\cdot}$ radioactivity produced in germanium,

Sagar, V. See Krall, H.

Sagastume, C. A., and Inda, C., cholesterolytic index, III, 731.

Inda, C., and Nico, R., preparation of a lipin-protein system of vegetable origin, III, 714.

Oliva, V., and Rivera, V., antigenic behaviour of urinary extracts, III,

Sage, B. H. See Carter, R. T.

Sage, C. See Glockler, G.
Sage, E. C. See Bohlender, G. P.
Sagenkahn, M. See Kennedy, R. M.
Sager, O. See Marinesco, G.
Sager, W. W., prevention and treatment of

wound infection, III, 527. and Raffel, W., sulphanilamide in treatment of pneumococcal peritonitis, III,

Saghirian, L. M., vinyl ether (vinethene): in surgery of the mouth, III, 218.

Sagromsky, H. See Mothes, K. Sah, P. P. T. See Hu, M. H. Sahariya, G. S. See Desai, R. D.

Sahs, A. L., congenital anomaly of cerebellar vermis, III, 855.

Sahyun, M., crystalline insulin of low zinc content, III, 571. Prolonged action of acidified solution of protamine-zincinsulin, III, 757.

Beard, P., Schultz, E. W., Snow, J., and Cross, E., growth-stimulating factors for micro-organisms, III, 139.

Saidel, L. J. See Nicolet, B. H.

Saier, E., Warga, M., and Grauer, R. C., differences in calibration curves of androsterone and dehydroisoandrosterone, III, 355.

See also Wilson, D. Saint, J. H. See Burntness, H. I.

St. John, J. L., McCulloch, E. C., Sotola, J., and Todhunter, E. N., toxicity to sheep of lead arsenate and lead arsenate spray residues, III, 41.

See also McCulloch, E. C. Sainton, P., tetany, III, 572. Saito, H. See Tomota, S.

Saito, I., paratyphoid C isolated from blood of typhoid-like patients, III, 1074.

Saito, K. Sec Hamawaki, T.

Saito, Y., properties of thin metal layers, I, 34.

Saitox, T. M. See Miller, J. J., jun.
Sakaguchi, K., Asai, T., and Munekata, H., acid fermentation by species of

Rhizopus. I., III, 389. and Inoue, T., formation of l- $a\beta$ -di-

carboxyethylene oxide by moulds. V., III, 304.

Sakai, K. See Shibata, Y. Sakai, W., carbamide. IV. System carbamide-gypsum-water. V. System  $Ca(NO_3)_2 - CO(NH_2)_2 - H_2O$ , I, 116, 266. Calculation of free energy and equilibrium constant from thermochemical values, I. 467.

Sakamoto, A., and Tukune, K., myelosis erythræmica, III, 490.

Sakamoto, S. See Tsuda, K.

absorption of estrogen on its excretion in urine, III, 1010. Percutaneous absorption of follicular hormone. I. Microanalysis and biological assay of "pelanin." II. Relation between kind of emulsion and absorption. IV. Hormone content of cosmetic preparations,

Sakata, S., and Taketani, M., Casimir's method of spin summation in case of the

meson, I, 4. Sakov, N. E., liberation of inorganic phosphate and trans-esterification from adenosinetriphosphoric acid in aqueous muscle extracts, III, 923.

Saksena, B. D., Raman spectra and molecular structure of aliphatic cyclic compounds, I, 28. Raman spectra and hydroxyl frequencies of fatty acids, I. 28. Raman spectra of esters of dicarboxylic acids; oxalyl chloride, ethyl and methyl oxalates, ethyl malonate, fumarate, and maleate, and oxalic acid, I, 73. Raman spectrum of gypsum, I, 240.

Saksena, R. K., thiamin and growth of species of Pythium, III, 1084.

Sakurai, K. See Takuma, T. Sakurai, Kiiti. See Sugasawa, S.

Sakurai, T., constitution of erythrin, II, 322. Colorimetric determination of vitamin- $B_1$ . III., Il1, 776. and Inagaki, T., determination of total vitamin- $B_1$  in natural substances, III,

25.

Omori, S., and Huzita, S., vitamin- $B_1$ content of rice, III, 892.

Saland, G., effect of benzedrine sulphate and cigarettes on skin surface temperature, III, 844. Acute occlusions of peripheral arteries, III, 977.Salant, E. O. See Horvath, W. J.

Salaruddin, M. See Das, A. K.

Saldaña, L. A., analysis of mineral waters from Ancash, I, 433.

Sale, H. M., and Evans, P., geology of British oilfields. I. Assam-Arakan oil region (India and Burma), I, 92.

Salellas, J. F., investigation of halogen acids following elimination of thiocyanic acid, I, 305. Preparation of aminoderivatives of diphenylmethane by the reaction of aniline and the toluidines with methylal and formaldehyde, II, 220. [Attempted] preparation of amino-acids by action of carbon dioxide on sodium derivatives of cyclic amines, II, 224.

Salimovskaja-Rodina, A. G., bacteria and yeasts as food for Cladocera (Daphnia

magna), III, 455.

Salit, P. W., micro-colorimetric determination of potassium in biological material, III, 152. Total lipin and cholesterol content of cataractous and sclerosed human lenses, III, 504. See also Swan, K. C.

Salk, J. E., purification of virus of epidemic influenza by adsorption on calcium phosphate, III, 1075.

Lavin, G. I., and Francis, T., jun., antigenic potency of epidemic influenza virus following inactivation by ultra-violet radiation, III, 807.

Salkind, J. S., cis- and trans-forms of  $\beta \epsilon$ -dimethyl- $\Delta \gamma$ -n-hexene- $\beta \epsilon$ -diol, II,

and Baranov, V. I., addition of carboxylic acids to acetylene y-glycols, II, 300.

and Chudekova, N. D., hydrogenation of acetylenic compounds. XXXII. Catalytic hydrogenation of alcohols with double and triple linkings, II, 25.

and Michantiev, B. I., hydrogenation of acetylenic compounds. XXXIII. Synthesis and catalytic hydrogenation of acetylenic hydroxy-acids, II, 349.

and Mosunov, P., addition of bromine and chlorine to  $\beta_{\gamma}$ -diphenylbutadiene,

Sall, R.D., and Shear, M.J., carcinogenesis. XII. Effect of basic fraction of creosote oil on production of tumours in mice by chemical carcinogens, 111, 277.

Salle, A. J., Shechmeister, I. L., and McOmie, W. A., germicidal efficiency of medicinal dyes compared with group of non-dye disinfectants, III, 293.

See also Knopfmacher, H. P. Salles, P. See De Gennes, L.

Salley, D. J., Fehrer, H., and Taylor, H. S., thermal stability, poisoning, revivification, and reactivity of chromium oxide gel catalysts for dehydro-cyclisation, I, 274.

Sallis, F. See Kündiger, A.

Sallmann, L. von, expansion tendency of vitreous and its  $p_{H}$ -volume curve, III,

Salm, R., histological effects of intraneural injections of quinine compounds, III, 219.

Salmon, M. See Powell, G.

Salmon, U. J., and Geist, S. H., biological properties of pregneninolone in women, III, 269. Buccal absorption of a-estradiol in propylene glycol, III, 356.

Salomon, K., invertebrate hæmoglobins

(erythrocruorins), III, 322

Salomonsen, L., prevention of hæmorrhagic disease of newborn by administration of cow's milk during first two days of life, Ill, 646.

and Nygaard, K. K., prothrombin content in relation to early and late

feedings of newborn, III, 75.
Salsbury, C. R., anatomy of ulnar bursa, III, 237.

Salt, F. W. See Hickling, A.

Salter, W. J., hæmocytometer method for reticulocyte and platelet counts, III, 323.

Salter, W. T., Nathanson, I. T., and Wilson, H., induced benignancy of neoplasm. V. Influence of hormones on the host's resistance to implanted neoplasm, III, 280.

Sec also Muus, J. Saltschinkin, A. P., physical chemistry of thermal denaturation of proteins. I. Interaction of denatured and native ovalbumin with hydrogen and hydroxyl ions, I, 45.

Saltschinkin, A. P., and Movschovitsch, F. L., lyophilic system albumin-pectin, I, 114.

Saltzman, M. Sec Ersner, M. S.

Saltzmann, R. A., calcium and phosphatase in saliva in relation to rate of secretion and formation of tartar, III, 198.

Salzburg, P., and Kubicek, W. G., regulated vascular obstruction, III, 337.

and Watson, C. J., supposed conversion of protoporphyrin into coproporphyrin by the liver. II. Porphyrin metabolism of rabbit liver, III, 680.

Salzman, C. See Modell, W. Samans, C. H. See Austin, C. R.

Samarina, K. I. See Kulakov, N. N.

Sammartino, R., and Arenas, N., effects of hypophyseal extracts and gonadotropic hormones on genital tract of normal castrated and hypophysectomised bitches, III, 188. Effects of tomised bitches, III, 188. urine of pregnant, castrated, and menopausal women, of chorionic gonadotropin, and serum of pregnant mares on genital tract of normal, castrated, and hypophysectomised bitches, III, 189.

See also Gandolfo Herrera, R. Sammis, E. C. See Montgomery, H.

Sammons, H. G., Shelswell, J., and Williams, R. T., detoxication. X. Characterisation of p-sulphonamidophenylglycuronide, II, 283; 111, 784.

Samotoi, M. P., relation between change in sugar level and blood-chlorides, III, 731. Sampey, J. R., and Hicks, E. M., photo-

chemical bromination of aryl methyl ketones, I, 276.

Sampson, D. A. See Vastine, J. H., jun.Sampson, E., occurrence of gudmundite, I,

Sampson, F. R., and Warren, D. C., density of suspension and morphology of sperm in relation to fertility in fowl, III, 190.

Sampson, J. See Graham, R. Sampson, J. B., and Seitz, F., theoretical magnetic susceptibilities of metallic lithium and sodium, I, 8.

Sampson, J. F. See Friedman, M. Sampson, W. L., See Fieser, L. F., Stein,

G. A., and Unna, K.

Sams, W. M., and Capland, D., topical treatment with sulphathiazole, III, 1047. Samsonova, G. See Botvinnik, M. M.

Samssonow, N., experimental carcinoma of lung, III, 112.

See also Kling, A.

Samtzov, V. A., heterogenic blood as decisive factor in Sanarelli-Shwartzman phenomenon, III, 1078. Samuel, R. See Asundi, R. K., and

Bergmann, E.

Samuels, B., drusen of optic papilla, III,

Samuels, L. T., Reinecke, R. M., and Ball, H. A., balance studies in hypophysectomised rats fed high-carbohydrate and high-fat diet, III, 869. Effect high-fat-low-protein diets nitrogen and fat metabolism of hypophysectomised and normal rats, III,

Reinecke, R. M., and Petersen, W. E., relation of nutrition to mammary gland growth after œstradiol administration to hypophysectomised rats, 111, 676.

See also Ritz, N. D.

Samuels, S. S. See Steinbrocker, O.

Samuelson, O., application of base-exchange materials in analytical chemistry. IV. Determination of iron and aluminium in presence of phosphoric acid, I, 58.

Samwick, A. A. See Morrison, M., and Wiener, A. S.

Sand, A. See Löwenstein, O.

Sand, K. See Okkels, H.

Sand, M. E., and Smith, L. W., postmortems on 50 cancer patients subjected to local or generalised refrigeration compared with 37 nonrefrigerated patients, ÎII, 281.

Sandberg, T. See Jundell, J. Sandell, E. B., morin reaction for beryllium, I, 127.

See also Kolthoff,  $I.\ M.$ Sandels,  $M.\ R.$ , Cate,  $H.\ D.$ , Wilkinson, K. P., and Graves, L. J., follicular conjunctivitis in school children as expression of vitamin-A deficiency, III, 862.

Sandeman, I., energy levels of a rotating vibrator, I, 6.

Sanders, A. See Katz, L. N.
Sanders, A. G., Ebert, R. H., and Florey,
H. W., mechanism of capillary contraction, III, 8.

and Florey, H. W., effects of removal of lymphoid tissue, III, 73.

Florey, H.W., and Barnes, J.M., output of lymphocytes from thoracic duet in cats and rabbits, III, 73.

See also Chain, E.

Sanders, F. K. See Young, J. Z.

Sanders, H. L., and Kolthoff, I. M., photovoltaic behaviour of pure silver bromide, I, 49.

Sanders, M., and Molloy, E., cultivation of virus of equine encephalomyelitis in serum ultrafiltrate and buffered salt solution (Simms), III, 808.

See also Canon, A. B. Sanderson, J. A., transmission of infra-red

light by fog, I, 362.

Sanderson, R. T. See Schlesinger, H. I.

Sandhoff, A. G. See Fuchs, W.

Sandhoff, S. S. See Lutkra, J. C.

Sandiford, I. See Adams, R.

Sandin, R. B., and Fieser, L. F., synthesis of 9:10-dimethyl-1:2-benzanthracene and of a thiophen isologue, II, 218.

Sandler, B. P., production of neuronal injury and necrosis with virus of poliomyelitis in rabbits during insulin hypoglycamia, III, 345.

Sandler, L. See Farkas, L.

Sandström, A. E., barrier-layer resistance of selenium photo-cells, I, 58.

Sandstrom, W. M. See Broome, F. K., Lillevik, H. A., and Lindstrom, H. V. Sandza, J. G., and Alicino, J. F., gaso-

meter for micro-Dumas determinations, I, 131.

Saner, W. R. See Sisson, W. A. Sanero, E., diorite-kinzigite formation in

surface deposits of Dent Blanche (Valpellina range), in Aosta region, I. 435.

Sanford, G. B., Rhizoctonia solani, Kühn. V. Virulence in steam-sterilised and natural soil, III, 389.

Sanford, H., and Doub, H. P., epidur-ography, III, 861.

Sanguinetti, A. A., ascorbic acid in sterilised

tomato juice, III, 211. Sano, M. E., carcinoma of tail of the pancreas and diabetes, III, 1016.

Santa, N., cortical hormone (corticosterone type) in selachian interrenal bodies, III, 1005.

See also Giroud, A.

Santavy, F., glutathione and strychnine poisoning in guinea-pig, III, 221.

Sántha, K. von, pallidal tremor, III, 986. Cerebral blood flow during induced convulsions, III, 990. Effect of circumscribed cortical lesions on muscle tonus and reflexes in man, III, 993. Hæmorrhage of corpus callosum, III, 994.

Santos, M. D. de S., detection of elementary

particles. I., I, 349. Pompeia, P. A., and Wataghin, G., showers of penetrating particles, I, 315. See also Pompeia, P. A.

Saphir, O., and Ballinger, J., hypertension and unilateral malignant nephroselerosis, III, 81.

See also Appel, M. Saphir, W., and Howell, K. M., iodophthalein for typhoid carriers, III, 37.

Sapir, P. See Stone, L. S.

Sapirstein, L. A., Pollock, W., and Krichesky, B., toxic substances in extracts of post partum rabbit uterus, III, 580. See also Ogden, E.

Sapp, A. C. See Hockett, R. C. Sappington, S. W., and Gillis, L. M., heparin as anti-coagulant in sedimentation tests, III, 556. Sar, A. van der. See Hartz, P. H.

Sarafyan, K. See Haurowitz, F.
Sarett, H. P. See Perlzweig, W. A.
Sargant, W., and Craske, N., insulin therapy in war neuroses, III, 1006.

Sarginson, K., reciprocity. VI. Wave function of the meson, I, 443.

Sarinski, V. Sec Tunitzki, N.

Sarkar, J. See Chatterjee, H. N.
Sarkar, T. C., lead ratio of a crystal of monazite from Gaya district, Bihar, I, 352.

Sarkisian, S. G., possible type of cassiterite mineralisation in near-polar Urals, I, 231. Sarkisov, A. G., cathodic rectification of

current in zero arm of Nernst bridge, 1, 58. Sarma, P. J., congenital absence of gall

bladder, III, 883.
Sarma, S. N. See Roberts, E. A. H.
Sarnet, B. G. See Adams, C. O.

Sarris, S. P. See Simeone, F. A. Sartori, A., bleeding and clotting time in dogs anæsthetised with cyclopropanc, 111, 217.

and Bennella, E., blood-sugar and -urea in dogs anæsthetised with cyclo-propane, III, 217.

Sartory, A., Hufschmitt, G., and Meyer, Jacques, protein and lipin metabolism in serum of eczema, III, 76.

Sasagawa, I'. See Knwada, S.

Sasaki, H. See Tange, U. Sasaki, N., and Hiraki, Y., thermal de-composition of nitrogen pentoxide by a platinum surface. I. and II., I, 478.

Sasaki, S., and To, S., cell-wall constituents of soya bean. II. Constituents of seed coat, III, 151.

Sasaki, T., foam. VII. Foam formation of mixed aqueous solutions of saponin and ethyl alcohol, I, 111.

Sastri, N. B. See Ganapathy, C. V.

Sastry, M. G., ultra-violet emission bands of mercuric chloride, I, 291. Interferometric measurements of lines in spectrum of bromine, I, 309. Ultraviolet band spectrum of HgBr, I, 362. and Rao, K. R., structure of electronic bands of OD molecule. I., I, 445.

See also Rao, K. R. Sastry, V. V. K., and Seshadri, T. R.,

chemical investigation of Indian lichens. II. Synthetic uses of lichen acids, II, 372.

Sata, N., and Môri, Koziro, irregular series in colloidal solutions by [the action of] electrolytes. III. Mercuric sulphide sols of various origin, I, 375.

Satake, T., and Shibata, S., influence of amino-acids on enzymic decomposition of histamine, III, 128.

Satake, Y., and Kojima, T., compensatory hypertrophy of adrenal glands in dogs, IİÎ, 437.

Sathaye, D. D., cataract, its pathogenesis and treatment, III, 90. Tonometric observations of normal intra-ocular pressure of Indian eyes, based on examination of 1202 persons, III, 180.

Sathaye, V. D., glaucoma, III, 863. Ectopia lentis, III, 865.

Sati, M. H. See Kirk, R.

Sato, A., and Ohta, F., detoxicating hormone of liver (yakriton). III., Ill, 446. Sato, K., complex pseudoglobulin-lecithin

in the vitellus, III, 204. Satô, M., pressure of electronic gas and thermal conductivity of metals, I, 150.

Sato, S., Arakawa's reaction and lactic acid content of human milk, III, 451. Variation of diastase content in lactating women's urine, III, 449. Action of morphia on urinary diastase, III, 616.

and Kodama, T., intranasal combined immunisation of rabbits with diphtheria and staphylococcal mixed

toxoids, III, 308.

Sato, T., effect of muscular work ou lactic acid, sugar, and adrenalinergic substances in blood, III, 920.

See also Fukumi, H.

Sato, Y. See Christiansen, B. E. Satoh, S., and Sogabe, T., heat capacities of organic compounds containing nitrogen and the atomic heat of nitrogen, I, 34, 78, 199, 248. Specific heats of copper nitride, niobium, nitride, and sodium azide, and the atomic heat of nitrogen, I, 160. Satomi, M. Sec Kondo, H.

Satow, K. See Nakamura, Y.

Sattar, A. See Lutkra, J. C. Satterfield, G. H. Sco Caveness, H. L., Holmes, A. D., and Richmond, M. S. Satterthwaite, F. E. See Jeans, P. C. Sattler, D. G. See Winter, C. A.

Sattler, E., cerebral vascular tumours, III, 978.

Sattler, H., relation between pressure and solubility of gases in liquids, I, 372. Solubility of hydrogen in liquid hydrocarbons, I, 408.

Sauer, J. A., and Temperly, H. N. V. theoretical study of a possible model of paramagnetic alums at low temperatures,

Saner, P. K., crymotherapy, III, 531. See also Whittemore, W. L.

Saunders, A. See Sugarman, H.

Saunders, B. C. See Chapman, N. B. Saunders, F., Dorfman, A., and Koser, S. A., rôle of nicotinamide and related compounds in metabolism of bacteria, III, 627.

See also Dorfman, A., Koser, S. A., and Sternfeld, L.

Saunderson, J. L., and Dnffendack, O. S., scattering of electrons from radium-E by thin metal foils, I, 438.

Savacool, J:W. See Charr, R.

Savage, H., development of vitamin-K and its clinical uses in neonatal period, III,

Savelsberg, IV. See Grothe, II.

Savin, S. A., equations of internal equilibrium of theory of elasticity, I, 247

Savitzki, A. J., and Rodionovskaja, E. I., preparation of xylidinesulphonamides and of xylidinesulphonyl derivatives of 2-aminopyridine, II, 358.

Savkar, G. S., Bokil, K. V., and Nargund, K. S., condensation of o-anisylsuccinic anhydride with phenyl methyl ethers, II, 103

Savtschenko, A. J. See Mizutsch, K. G. Savvina, A. G. See Bobko, E. V.

Savy, P., Thiers, H., and De Chazournes, L. B., hemorrhagic toxicity of pathologic human scrum, III, 163.

Sawada, H. See Ito, Tei-ichi. Sawai, I. See Inoue, S.

Sawyer, R. A., and Vincent, H. B., specifications and testing of spectro-chemical apparatus, I, 222. See also Schauls, (Miss) M. R.

Sawyer, S. D. See Blatherwick, N. R., and Larson, II. IV.

Saxl, O., lung agenesia, III, 83. Scleroderma and calcinosis, III, 94.

Saxton, J. A., relation of age to occurrence of adenoma-like lesions in rat hypophysis and to their growth after transplantation, III, 888.

Sayers, G., and Orten, J. M., sodium chloride and peritoneal absorption and renal exerction of glucose in normal and diabetic rats, III, 783.

Sayers, R. R. See Jones, R. R., Miller, J. IV., and Schrenk, H. H.

Saylor, J. II. See Stuckey, J. M., and

Vermillion, H. E.Scantlebury, R. E., and Patterson, T. L.,

hunger motility in hypnotised subject, III, 444.

Scarborough, H., deficiency of vitamin-C and vitamin-P in man, III, 287. Stored blood. VIII. Effect of transfusion on capillary resistance, III, 725.

See also Crosbie, A., and Horne, G. Scarisbrick, R. Sce Jones, M. S.

Scatchard, G., sorting of mixed solvents by ions, I, 167.

Schaaber, O. See Glocker, R.

Schaaf, F., and Burckhardt, IV., detection of intravenously injected substances (especially l-3:4-dihydroxyphenylalanine) inside epithelial cells; detection of reducing sugar-like substances in skin of man and animals by silver nitrate, III, 152.

Schaafsma, A. W. See Grasset, E. Schabaschova, V. N. Sec Tischtschenko,

Schade, A. L. See Wallerstein, J. S.

Schadewald, M., effects of cutting trochlear and abducent nerves on end-bulbs about cells of corresponding nuclei, III, 660.

Schaefer, K. W. P. See Kaether, H. Schaefer, S., sulphapyridine in pneumo-coccal meningitis complicated by pul-monary tuberculosis with recovery, III,

Schaefer, V. J., studies of surface properties by light scattering of deposited

liquid films, I, 256. Schaeffer, G., and Le Breton, E., l'action dynamique spécifique des protides. I .-

II. [Specific dynamic action of proteins.] I.—ĬI., Ill, 408. Schaeffer, H. F., and Palmer, G. D., plastic and allotropic forms of sulphur,

Ī. 105. Schänker, N. See Koller, T. Schaeuble, J., Indians and half-breeds in South Chili, III, 488. Schafer, E. See Rouslacroix, A.

Schaffa, H., blood transfusion in childhood, III, 74.

Schaffer, C. F., and Greenbaum, F. R:, metabolism of allantoin, III, 31.

Schaffer, N. See Chobot, R.
Schaffer, N. K., and Stander, H. J., true uric acid in hyperuricamia of preeclampsia and eclampsia, III, 557.

Schaich, W. E., treatment of laryngeal tuberculosis, III, 752.

Schain, G., the corona spectrum, June 19, 1936, at Omsk, I, 137.

Schairer, J. F. See Osborn, E. F. Schalberov, N. A. See Ivanova, E. V. Schales, O., and Schales, S. S., determination of chloride in biological fluids, III,

1087. Schales, S. S. See Schales, O. Schalk, A. F. See Hunt, C. H.

Schall, L., technique of X-ray examinations of chest in childhood, III, 340.

Schaller, W. F., Tamaki, K., and Newman, H. W., petechial hæmorrhages of brain experimentally produced in rats by concussion, III, 743.

Schallock, G., influence of massive vitamin-D dosage on organs, III, 29.

See also Hässler, E.

Schalm, O. W., treatment of streptococcic mastitis by infusion of udder with entozon, III, 38. and Haring, C. M., thin serial sections

of soft-tissue organs, III, 70.

Schaltenbrand, G., and Tratt, F., myographic studies in cases with circumscribed lesions of the spinal cord, III, 983.

See also Krämer, H.

Schamberg, I. L., course of plasma-protein changes in early lymphopathia venereum under treatment with sulphanilamide, III, 609.

Schantz, E. J., Boutwell, R. K., Elvehjem, C. A., and Hart, E. B., nutritive value of fatty acid fractions of butter fat, III, 593. Effect of added egg-phospholipins on nutritive value of vegetable oils, III, 593. Schapot, V. S., mitogenetic spectral analysis of action of catalase, III, 622.

Scharff, I., acetonæmic vomiting [and

adrenal insufficiency], III, 349. Schargorodski, S. D. See Fialkov, J. A. Scharov, V. S., surface solubility of clay particles, I, 43. Hydration of clay in water vapour and in liquid water, I, 112.

and Butovskaja, V. A., preparation and properties of calcium-clay in state of primary dispersity, I, 259.

Scharovatova, O. F., influence of chemical substances introduced into small in-

testine on gastric secretion, III, 880. Scharrer, B. See Scharrer, E. Scharrer, E., arteries and veins in mammalian brain, III, 1.

and Scharrer, B., neurosecretion. I. Nucleus preopticus of Fundulus hetero-II. Neurosecretory cells in central nervous system of cockroaches. III. Cerebral organ of Nemerteans, III, 662.

Schaschkina, T. I. See Sementschenko, V. K.

Schatrovskaja, L. P. See Korf, D. M. Schattenberg, H. J., experiments on B. violaceus, isolated from a fulminating fatal human infection, III, 395.

Schattenberg, H. J., and Van Brown, D., experimentally produced wounds as route of fatal infection caused by B. violaceus,

Schattenstein, A. I., apparatus for study of physico-chemical properties of solutions and for carrying out reactions in liquefied gases under pressure, I, 307. Schattner, F. See Rose, A. R.

Schauls, (Miss) M. R., and Sawyer, R. A., new lines and terms in arc and first spark spectra of molybdenum: Mo I and Мо п. Î, 138.

Schavrigin, A. I., degradation of isoborneol by xanthate method, II, 69.

Schaxel, J., parabiosis, III, 949.

Schechter, A. B., chemical reactions in a glow discharge, I, 275.
Schechter, M. S., and Haller, H. L.,

automatic continuous percolator, I, 433. Scheele, L. A. See Cowie, D. B. Scheer, B. T., metabolism of carotenoid

pigments in California sea mussel (Mytilus californianus), III, 123.

Scheer, J. van der, and Wyckoff, R. W. G., electrophoretic analysis of digested antitoxic sera, III, 312.

See also Kurotchkin, T. J. Scheff, G. J., influence of partial and complete hepatectomy on methæmoglobin formation by aniline and p-aminophenol,

Scheichenberger, H. See Rona, E.

Scheie, H. G., and Souders, B. F., penetration of sulphanilamide and its derivatives into aqueous humour of eye, III, 863.

Scheifley, C. H., and Higgins, G. M., effect of colchicine after partial removal

of liver, III, 14.

Schein, M., Jesse, W. P., and Wollan, E. O., nature of primary cosmic radiation and origin of the mesotron,

Wollan, E. O., and Groetzinger, G., production and absorption of mesotrons in the substratosphere, I, 70. See also Carlson, J. F.

Scheina, Z. G. See Mokruschin, S. G. Scheinfinkel, N. See Asher, L.

Scheinker, I., origin of mcdulloblastoma from embryonic layer of cerebellum], III, 985. Ætiology and clinical syndrome of subarachnoidal hæmorrhage (leptomeningitis hæmorrhagica), III, 993. Tetany and central nervous system, III, 993.

Scheinkman, E. A., products of chemical and biochemical decomposition of ascorbic acid. I. Titrimetric acidity and oxygen consumption in chemical decomposition. II. Detection and determination of oxalic acid. III. Effect of ascorbic acid on excretion of oxalic acid by guinea-pigs, II, 240, 307; III, 685. Scheinman, L. See Denker, P. G. Scheintzis, O. G., borofluoric acid in micro-

analysis, I, 127. Magnesium salt of hexanitrodiphenylamine in analysis, I, 127.

Scheka, I. A., dipole moments of complex compounds of aluminium chloride, I, 193.

Schelling, II. von, miscalculation of biological data, III, 1021.

Scheludko, M. K. See Alexandrovitsch, V. A.

Schemiakin, F. M., and Michalev, P. F. producing periodical structures and determining periodicity constant, I, 46.

Schemjakin, M. M., spatial structure of two new diphenylcyclobutancdicarboxylic acids; μ- and ω-truxinic acids, II, 169. Properties of  $\mu$ -truxinic acid, II, 169.

See also Vulfson, N. S.

Schemjakina, O. M. See Kozlov, V. I'. Schenck, J. R. See Du Vigneaud, V.

Schenck, L. M., and Bailey, J. R., nitrogen compounds in petroleum distillates. XXI. Isolation and synthesis of 2:3:4-XXII. trimethyl-8-isopropylquinoline. Isolation and synthesis of 2:3-dimethyl-4:8-diethylquinoline and 2:3-dimethyl-

4-ethyl-8-n-propylquinoline, II, 269. Schenken, J. R. See Moss, E. S., and Reynolds, C.

Schepelev, A. I. See Drinberg, A. J.

Scheps, M. See Elmer, A. W. Scherb, R. F. See Karnosh, L. J., and Krause, G. R.

Scherer, H. J. See Froehlich, A.

Schereschevski, II., structure of epithelial tissues in pharyngeal region of Teleostei, III, 548.

Schereschevski, N. A., senility and endocrine system, III, 93.

Scherf,  $\vec{D}$ ., reciprocating [cardiac] rhythm, III, 495.

See also Boyd, L.J., and Burrett, J.B.Scherf, S, and Weissberg, J, alterations of T waves caused by change of posture, III, 650.

Schesterikova, T. P., and Gelelovitsch, E. I., nitrogenous metabolism in pre-

served cornea, III, 862.

and Poljakova, N. M., changes during growth in weight and composition of endocrine glands of rabbits, III, 752.

and Rapoport, K. M., mineral metabolism in preserved cornea, III, 863. and Rozenfeld, E. L., lipin metabolism

in preserved cornea, III, 863. Schetty, O. See Ruggli, P.

Scheunert, A., vitamin balance experiments, III, 23. Vitamin-A content of vegetable oils, III, 891.

Scheurenberg, G. See Grüninger, U.

Scheurer, O., and Riemerschmid, G., effect of cigarette smoke on skin temperature, III, 215.

Zimmermann, H., and Riemerschmid, G., action of weather on skin temperature, III, 174.

See also Riemerschmid, G. Scheyer, K., Buerger's disease, III, 251. Schicher, M. G. See Pamfilov, A. V.

Schier, M. B. A., ear piece in testing for and fitting hearing aids, III, 348.

Schiersmann, O., effect of short-wave treatment of head on cerebrospinal fluid pressure, III, 996.

Schiessler, R. W. See Stevens, P. G.

Schiff, F., racial differences in frequency of secretory factor, III, 4.
Schiff, L., and Shapiro, N., perforation of stomach with the flexible gastroscope

case report, III, 1014. See also Moss, H. K.

Schiff, L. I., phase transition in liquid helium, I, 318. Structure of liquid helium, I, 318. Degenerate non-ideal gases, I, 318.

Schiff-Wertheimer, Bourguignon, G., Justin-Besançon, L., and Barbier, P., cataract

revealing latent tetany, III, 433.

Schifferli, E., abortions with vegetable substances, III, 219. Cases of abortion with apiol, III, 296.

Schiffrin, M. J., experimental jejunal ulcer, III, 272.

and Romarov, S. A., inactivation of pepsin by compounds of aluminium and magnesium, III, 1015.

Schifrin, F. S., problem of colour of organic compounds, II, 148.

Schilder, P. See Orenstein, L. L.

Schilin, L. L., sliishimskite (perovskitespinel magnetite) from Praskovie-Eugenievsky mine in Shishim Mts., South Urals, I, 183. Titanovesuvianite from Perovskite mine in Chuvash mountains, South Urals, I, 228.

Schilling, W., and Laqueur, G. L., effect of castration and replacement therapy on thyroid, pituitary, adrenal, and body weights in thyrohyperplastic rats, III,

760.

Schimpff, G. W., and Pottinger, R. E., recovery of mercuric iodide and iodine from nesslerised solutions, I, 383.

Schindler, R., gastroscopic observations in resected stomachs, III, 270. Clinical significance of gastroscopy, III, 581. Early diagnosis of cancer of the stomach; gastroscopy and gastric biopsies, gastro-

photography and X-rays, III, 589. Schindler, W., Frey, II., and Reichstein, T. constituents of adrenal cortex and related substances. XLV. Δ<sup>4</sup>-Pregnen-20-ol-21-al-3-one, II, 258. See also Reichstein, T.

Schintlmeister, J., existence of thorium-

polonium, I, 23. Schipalov, M. S. Sec Liubimova, M. N. Schippers, J. C., atresia of cesophagus with œsophago-tracheal fistula, III, 361.

Schirmer, R., results in 45 rachities treated with concentrated vitamin- $D_2$ , III, 29.

Schiro, H. See Sterne, E. H., jun. Schischkin, N. V., solubility curves, I,

Schischlovski, A. A. Procetrophotometry of [light of] low intensity, I, 389. See also Gordon, B. E.

Schkitin, V. P. See Voroshcov, N. N. Schklaev, I'. S. See Lapkin, I. I.

Schklaeva, T. I. See Lapkin, I. I. Schkodin, A. M., colloid-chemical properties of starch, I, 43. Potentiometric study of differentiating action of ketones, II, 281.

Schlack, II., relation of convulsive paroxysms in early infancy to trauma and

constitution, III, 345.

Schlaeffer, M., and Myers, G. B., tetanus in serum-sensitive patient successfully treated with new despeciated antiserum, III, 699.

Schläpfer, E. See Brunner, W. Schläpfer, R. See Karrer, P.

Schlatter, M. J. See Lucas, H. J. Schlayer, C. See Kempner, W.

Schleicher, E. M., demonstration of trabecular framework of human and mammalian spleen, III, 641. Schleifer, K. M. See Meerzon, T. J.

Schleiff. See Lindemann.

Schlenk, F. See Euler, H. von., and

Högberg, B. Schlenker, II., spontaneous rupture of aorta, III, 174.

Schlesinger, B., angioarchitecture of thalamus in rabbit, III, 153.

Schlesinger, C. R. See Hollander, L., and Kastlin, G. J.

Schlesinger, H. I., and Brown, H. C., metallo borohydrides. III. Lithium borohydride, I, 123.

Schlesinger, H. I., Sanderson, R. T., and Burg, A. B., metallo borohydrides. I. Aluminium borohydride, I, 123.

See also Burg, A. B.

Schlesinger, M. J., and Zoll, P. M., incidence and localisation of coronary artery occlusions, III, 842.

See also Blumgart, II. L. Schlezinger, N. S., and Alpers, B. J., syntropan in Parkinsonism, III, 499.

Schlicke, C. O. See Mayo, C. W. Schlivek, K. See Goldberg, H. K. Schloss, S. See Reynolds, S. R. M.

Schlossberg, R. See Arana, G. B. Schlossberg, T., and Durruty, C. A.,

estrogenic activity of blood, III, 839. Schlotthauer, C. F., and Berryman, G., canine hysteria [not due to dietary protein deficiency], III, 1032.
Schluederberg, H. See Houser, K. M. Schlumberger, H. See Lucke, B.
Schlutz, F. W., fat child at puberty, III,

1009.

and Knott, E. M., cocarboxylase content of blood of infants and of children, III, 649.

Morse, M., Cassels, D. E., and Iob, L. V., nutritional and physical status and response to exercise of 16 negro boys 13-17 years of age, III, 488.

Schmalhausen, O. I., development of otocysts in absence of medulla oblongata

in amphibia, III, 319.

Schmauss, O. See Wieland, H. Schmeckebier, M. See Pryor, H. B. Schmeisser, H. C. Sce Davies, H. A.

Schmelser, B. C. See Bavies, R. A.
Schmeler, B. A. See Kapustinski, A. F.
Schmeling, L. See Pines, H.
Schmid, R. F. See Gerö, L.
Schmid, W. See Theilacker, W.
Schmidt, C. F., functions of carotid and

aortic bodies, III, 171. Schmidt, C. L. A. See Batchelder, A. C., and Morse, L. M.

Schmidt, C. R. See Beazell, J. M.

Schmidt, E. C. H., jun., and Richter, C. P., anatomical and behaviour changes produced by partial hepatectomy in rat, III, 584.

See also Richter, C. P. Schmidt, F. R., action of iodine on diseases of skin as influenced by season and weather, III, 298.

Schmidt, G. See Peczenik, O. Schmidt, II. See Pearson, P. B.

Schmidt, I. G., and Hoffman, F. G. proliferation and ovogenesis in germinal epithelium of normal mature guinea-pig ovary, as shown by colchicine technique, III, 640.

Schmidt, J., treatment of nephrosis in infancy, III, 364.

Schmidt, L. H., Claugus, C. E., and Starks, E., response of sulphapyridine-fast

pneumococci to sulphathiazole and sulphamethylthiazole, III, 692.

and Sesler, C. L., response of sulphapyridine-resistant pneumococci hydroxyethylapocupreine, III, 1043.

Schmidt, P., "solar bronchitis" in adults? III, 792.

Schmidt, R., apparatus for study of physics of the atomic nucleus, I, 59.

Schmidt, W. See Cremer, J. Schmidt, Wolfgang. See Weibke, F.

Schmit, A. See Sachs, A. Schmitt, C. L. See Hollander, L.

Schmitt, F., mineral metabolism in patients with gastric hyper-, hypo-, and anacidity, III, 103.

Schmitt, F., and Frigge, II., action of carbonic anhydrase on mineral metabolism in different conditions, III, 86.

Schmitt, F. O., Bear, R. S., and Palmer, K. J., X-ray diffraction studies on structure of nerve myelin sheath, III,

See also Bear, R. S., Palmer, K. J., and Silber, R. II.

Schmitz, R. L. See Brunschwig, A. Schmuk, A., and Borozdina, A., colour

reaction for the pyridine ring, nicotine, and anabasine, and colorimetric determination of these alkaloids, II, 116.

and Guseva, A., biological activity of isomeric compounds. I. Action of isomeric naphthalene derivatives on

plants, III, \$18.

Guseva, A., and Iljin, G., correspondence between effects of accnaphthene in plants and of carcinogenic com-pounds on animal tissues, III, 541.

Schnabel, T. G. See Fetter, F. Schnedorf, J. G., oxygen therapy in reactions following barbiturate anæsthesia and cisternal intervention, III, 615.

Munslow, R. A., Crawford, A. S., and McClure, R. D., anoxia and oxygen therapy in head injury, III, 563.

Schneider, B. M. See Knouff, R. A. Schneider, E., chemiluminescence of . luminol catalysed by iron complex salts of chlorophyll derivatives, II, 271.

Schneider, F. See Foulke, D. G. Schneider, H. A. See Folch, J.

Schneider, L., local use of sulphanilamide powder and hydrogen peroxide in wound infections, III, 460.

Schneider, M., relation of vitamin-C to teeth; caries prophylaxis and experiments on animals with "Cantan," III, 119.

See also Zahnd, II. Schneider, P. H. See Uhlig, II. II.

Schneider, R., ergometer test of arterial blood flow in lower extremities, III, 80.

Schneider, R. W. See Haden, R. L. Schneider, (Frl.) V. von. See Goubeau, J. Schneider, W. G., and Thorvaldson, T., dehydration of tricalcium aluminate hexahydrate, I, 304.

See also Thorvaldson, T

Schneierson, S. S., cedar oil bottle, III, 820. Schneiper, A., dermatological use of sulphathiazole, III, 1047.

Schnetz, A. See Mieseher, G. Schnetz, II. See Berger, W.

Schnurmann, R., contact electrification of solid particles, I, 367. Temperature coefficient of static friction, I, 370.

Schober, B., production of glomerulonephritis in animals, III, 448.

Schoch, A. G., Alexander, L. J., and Long, W. E., mapharsen in treatment of 40 patients following arsphenamine derm-

atitis, III, 220.

Schoch, E. P., Hoffmann, A. E., and Mayfield, F. D., solubility of methane in

cyclohexane, I, 9. Solubility of methane in n-hexane, I, 296.

Schoch-Bodmer, II., influence of nutrition on pollen grain size in Lythrum salicaria, III, 57.

Schöberlein, W., development of prematurely born infants, III, 410.

Schoeller, W. R., alteration products of stibnite, I, 490.

Schölzke, K. II., depot treatment of diabetes insipidus, III, 98.

Schoen, A.L. See Hall, C.E. Schoen, R., demonstration of lymphogranulomatous corpuscles by silver im-

pregnation, III, 935.

Schönberg, A., and Ismail, A. F. A., colour reaction of maleic anhydride, p-benzoquinone, their partially substituted derivatives, and citric acid; zwitterions, II, 4.

Moubasher, R., and Mostafa, (Miss) A., formation of methylene ethers by action of diazomethane on a-ketolactones and on diphenyl trikctone: pyrolysis of coumarandione and allied substances, II, 231.

Schönberg, M., multiplicative showers, I, 190.

See also Gamow, G., and Occhialini,

G. P. S. Schoene, R. H. See Haam, E. von.

Schoenheimer, R. See Bloch, K., and

Roloff, M. Schönholzer, G., cholcstcrolytic property of

serum, III, 558.

Schoental, R., nature of antibacterial agents present in Pseudomonas pyocyanea cultures, III, 803.

Schoepfle, G. M., luminescent flashes from Achromobacter fischeri at different temperatures, III, 307. Effects of veronal, dinitrophenol, and osmotic pressure on bacterial luminescent flashes, III, 390.

Schoffman, W. F., banana diet in treatment of typhoid fever in children, III,

Schofield, IV., calcite nodules in Keuper

marl at Upton, Wirral, I, 20.
Scholander, P. F., and Irving, L., respiration and diving of Florida manatee, III, 564.

See also Irving, L.

Scholnik, S. S., Reasenberg, J. R., Lieber, E., and Smith, G. B. L., promoter effect of platinic chloride on Raney nickel.

III. Hydrogenation of nitrobenzoic acids and nitrobenzene-aniline intermediates, II, 254.

Scholtan, IV. See Müller, F.

Scholten, C., determination of carbon

monoxide in blood, III, 339.

Schomaker, V., and Stevenson, D. P., revisions of covalent radii and additivity rule for lengths of partially ionic single covalent bonds, I, 100.

Schonberger, S. See Tollman, J. P. Schons, E., importance of accurate collim-

ation of beam in deep roentgen therapy, 111, 532.

Schonwald, P., fungus allergies, III, 810. Schoof, H. F., effects of various relative humidities on life processes of Southern cowpea weevil, III, 886.

Schooley, J. P., Riddle, O., and Bates, R. W., replacement therapy in hypophy-

sectomised juvenile pigeons, III, 868.
Schopfer, W. H., permeability of plant tissues to thiochrome, III, 313.

Schotland, C. E., and Loeser, L. H., epilepsy: treatment with phenobarbitalbelladonna synergism, 111, 665.

Schott, R. G., and Phillips, R. W., rate of sperm travel and time of ovulation in sheep, III, 674.

Schou, H. I., skin temperature in manicdepressive insanity, III, 994.

Schour, I. See Hoffman, M. M., and Massler, M.

Schpadi, A. V. See Esafov, V. I. Schpigel, N. A., dispersion of current in solutions, I, 417.

6—A

Schpinel, V. S. See Lange, F. F. Schpitalski, A. S., Emelianova, E. A., and Faerman, S. B., action of formaldehyde

on gluten [gelatin?], II, 343. Schpitalski, E. E. See Gorbatschev, S. V. Schrader, F., spermatogenesis of Anisolabis maritima with reference to mechanism of chromosomal movement, III, 414.

Schramm, G., and Müller, Hans, configuration of amino-acids present in tobacco mosaic virus, III, 55. Chemistry of tobacco mosaic virus, III, 1076.

Schramm, W., gonococcal complement fixation reaction and sulphonamide treatment of female gonorrhea, III, 610.

Schranz, D., murder of 10-week-old infant with crude hydrochloric acid, III, 383.

Schreck, W. See Plattner, P. A. Schreffler, C. B. See Arnold, A.

Schreiber, G., and Koch, C., growth of retina in amphibians during spontaneous and experimentally induced metamorphosis, III, 865.

Schreiber, R. E. See Lark-Horovitz, K. Schrek, R., and Gates, O., cutaneous carcinoma, III, 592.

Schremp, E. J., and Baños, A., jun., fine structure pattern of cosmic rays at Mexico City. I. and II., I, 3, 289.

Schrenk, H. H., Yant, W. P., Pearce, S. J., Patty, F. A., and Sayers, R. R., absorption, distribution, and elimination of benzene by body tissues and fluids of dogs exposed to benzene vapour, III, 383.

See also Jones, R. R. Schröder, G., "thyteban" and other specific remedies in treatment of tuber-

culosis, III, 293. Schröder, H. See Auer, H. Sehroeder, H. A., and Steele, J. M., organic renal disease in "essential" hyper-

tension, III, 980.

Schröder, J. S. See Benecke, E.
Schröderheim, J. See Hammar, B.
Schroeter, J. See Strunz, H.
Schtamova, S. Z., electric conductivity and viscosity of systems pyridine hydrochloride-pyridine and pyridine hydrochloride-water, I, 407.

Schtschelkanovtzeva, A. J., variation of ζ-potential of colloids in water-alcohol-

ether mixtures. I., 1, 263. Schtscherbakov, A. P., winter oxygen régime of Mologa river, I, 283.

Schtscherbakov, N. A. See Batalin, A. C. Schtscherbakov, N. M., stages of fatigue and "parabiosis" following on blood changes. I., III, 168. Blood changes in fatigue, III, 835.

See also Krajuchin, B. V.

Schtscherbakova, K.D. See Terentiev, A.P.Sehtschukina, M. N., 4-glyoxalinyl-4'hydantoylmethane and its hydrolysis, II, 77.

Okun, S. S., Jurigin, D. N., and Preobrashenski, N. A., resolution of racemic scopolamine into optical isomerides, II, 79.

and Preobrashenski, N. A., products of condensation of a-formylcarboxylie acid esters with a-halogen-substituted esters. II. Carboxylation of vinyl alkyl esters, II, 240.

Schtukin, G. J., Grignard synthesis of unsaturated halogeno-alcohols, II, 58. Schubert, M. P. See Michaelis, L.

Schubert, W., pathogenesis of esophagitis, III, 444.

Schuch, J. See Dietert, H. W.

Schuchard, E. A., and Uehling, E. A., steady-state diffusion under conditions of generalised source and incident current distributions, 1, 2.

Schüpbach, A., diabetes therapy with protamin-zinc-insulin, III, 264

Schurch, O., malignant melanoma in rabbit after painting with benzpyrene, III, 278. Blood transfusion with heparin, III, 327.

and Iseli, O., serum and urinary diastase after experimental pancreatic damage [in dog], III, 513.

and Willenegger, H., clinical experience with transfusion of stored blood, III, 795.

See also Fischer, H.

Schuette, H. A., and Vogel, H. A., solidification-point curves of binary [fatty] acid mixtures. II. Palmitic, stearic, arachidic, behenic, lignoceric, I, 35.

Schütz, F., biological standardisation of anticoagulants [heparin preparations], III, 492. Perspex and delay of blood coagulation, III, 967.

Schütze, II., simultaneous immunisation against whooping cough and diphtheria, IĬI, 52.

Schugam, E. A. See Zilberman-Granovskaja, A. A.

Schuhmann, S. See Branham, J. R., and

Shepherd, M.
Schujkin, N. I., Dmitriev, I. I., and
Dobrinina, T. P., catalytic hydrogenation of coumarone, II, 51.

Schulgina, M. P. See Makarov, S. Z. Schulman, J. H., orientation at oil-water interface of esters and their digestion

by pancreatin, I, 207.

See also Knott, G. Schulman, M. S., and Karelschtadt, A. M., electrical volume effects on gels and sols of agar, I, 43.

See also Liepatov, S. M., and Tumanski, S. S.

Schulte, J. W., Reif, E. C., Bacher, J. A., jun., Lawrence, W. S., and Tainter, M. L., central stimulation from sympathomimetic amines, III, 295.

Schulte, T. L., unusual vesical ulcer, III, 448.

Schultz, A. H., growth and development of chimpanzee, III, 158. Size of cranial cavity in primates, III, 956.

Schultz, A. S., Atkin, L., and Frey, C. N., influence of oxygen on fermentation of maltose and galactose, III, 48. Determination of thiamin and its metabolic products in urine, III, 284.

Atkin, L., Frey, C. N., and Williams, R. R., application of sulphite cleavage of aneurin to yeast fermentation method, III, 374.

Schultz, C. G. See Mayo, F. R. Schultz, E. D. See Schultz, R. F.

Schultz, E. W., regeneration of olfactory cells, III, 435.

See also Sahyun, M.

Schultz, F. II., effect of cinnamylephedrine on smooth muscle, III, 216.

Schultz, H. L., Davidson, W. L., jun., and Ott, L. H., protons from carbon and aluminium bombarded by deuterons, I, 68.

and Watson, W. W., protons from separated isotopes of carbon and neon under deuteron bombardment, I, 68. Schultz, J., chemical nature of antianæmic

principle, III, 827.

Schultz, J. F., and Wulf, O. R., oxidation of nitrogen in an ozoniser discharge at high temperatures, I, 274.

Schultz, M. L. See Freed, S.

Schultz, M. P., ascorbic acid and rheumatic fever. II. Test of prophylactic and therapeutic action of ascorbic acid, III, 119.

Sec also Sendroy, J., jun.

Schultz, R. F., Schultz, E. D., and Cochran, J., reaction of fluorenone with diazomethane; new route to 9-phenanthrol derivatives, II, 222.

and Smulliu, C. F., preparation of alkylidenefluorenes from fluorene and

aliphatic aldehydes, II, 218.

Schultze, M. O., relation of copper to cytochrome oxidase and hæmatopoietic activity of bone marrow of rats, III, 557.

and Kuiken, K. A., effect of deficiencies in copper and iron on catalase activity

of rat tissues, III, 372.

Schulz, M. D. See Becker, R. F., and Windle, W. F.

Schumacher, G. A., Ray, B. S., and Wolff, H. G., histamine headache and its pain pathways, III, 342.

Schumann, H., influence of sex hormones on glycogen, phosphagen, and adenyl pyrophosphate content of heart and skeletal-muscle, III, 849.

Schumann, S. C. See Aston, V. G.

Schumb, W. C., Evans, R. D., and Leaders, W., radioactive determination of relative abundance of isotope 40K in terrestrial and meteoritic potassium, I, 351.

and Rittner, E. S., effect of application of sonic energy to hydrolysis of potassium persulphate, I, 122.

and Saffer, C. M., organo-silicon synthesis. III. Two-stage Wurtz reactions with silicon halides, II, 113.

Schumeiko, A. K., preparation of phenylacetaldchyde, II, 323.
Schumova, I. S. See Pogodin, S. A.

Schur, J. S., anisotropy of hysteresis in ferromagnetic single crystals. II., 1, 157. Schuruigina, E. See under Shurigina, E. A.

Schurupova, V. K. See Baranaev, M. K. Schvartzman, U. I., thermal analysis of systems AlCla-NaCl and AlCla-KCl, I,

Schvedkova-Rosche, T. S., degeneration of elastic fibres in mammary gland, III,

Schwab, F. W., and Wichers, E., preparation of benzoic acid of high purity, II,

Schwab, G. See Karrer, P.

Schwabe, E. L. See Matthews, C. S., and Russell, H. K.

Schwachman, H., serum-phosphatase in infantile scurvy, III, 970. See also Talbot, N. B.

Schwaiger, M., Still's disease, III, 327. Sehwalm, H., determination of blood and plasma viscosity, III, 76.

Schwarcz, M. See Price, C. C. Schwarke, R., rectal temperature after death and its use for determination of time of death in forensic medicine, III,

Schwartz, A. S., and Rector, E. J., methæmoglobinæmia of unknown origin in a two-week-old infant [treatment with methylthionine chloride], III, 163.

Schwartz, E. R. See Feldman, F. M.

Schwartz, G. M., and Ronbeck, A. C., magnetite in sulphide ores, I, 62.

Schwartz, H., and McCarthy, J. L., synthesis of 4-hydroxy-3-methoxymandel-amide, II, 252.

Schwartz, H. J., and Maddren, R. F., circumscribed myxodema, III, 570.

Schwartz, Leon, and Flippin, H. F., sulphathiazole in treatment of pneumonia, III, 905.

See also Bellet, S., Flippin, H. F., Oliver, E. A., and Reinhold, J. G.

Schwartz, Louis, Spolyar, L. W., Gastineau, F. M., Dalton, J. E., Loveman, A. B., Sulzberger, M. B., Cope, E. P., and Baer, R. L., dermatitis from new resin, III, 298.

and Warren, L. H., dermatitis caused by contact with copperweed (Oxytenia acerosa), III, S12.

Schwartz, L. S., and Pokrovskaja, G. N.,

blood-glycogen, III, 969. Schwartz, M. Sce Allen, F.

Schwartz, M. S. See Localio, S. A. Schwartz, P., and Heath, L., foot function, III, 546.

Schwartz, R. See Arena, A. R. Schwartz, Robert. See Chasnoff, J. Schwartz, S. See Watson, C. J.

Schwartz-Grudzinskaja, P. J. See Chanin, M. N.

Schwartzer, K., blood-calcium in newborn [rôle of parathyroids], III, 437.

and Middelkaupf, W., dysostosis en-chondralis, III, 638.

and Stockebrand, L., influence of vitamin-C on Schick test, III, 391.

See also Horn, F., and Loeschke, E. Schwartzman, J., cardiac status of adolescents, III, 842.

Dragutsky, D., and Rook, G., Sydenham's chorea [treated with vitamin- $B_{\bullet}$ ], III, 988. Ritter's disease [exfoliative dermatitis of infants, treated with riboflavin], III, 1036.

and Weinstock, I., constipation, its effects on children, III, 679.

Schwarz, E., and Teleky, L., poisoning

by benzene and its homologues, III, 383.

Schwarz, F., sense of smell in forensic medicine, III, 570.

Schwarz, H. See Kohn, J. L., Priestley, J. G., and Weiner, S. B.

Schwarz, H.J. See Werle, E.

Schwarz, P. A., anatomical and cytological changes in seedlings from chemically treated cereal grains, III, 482.

Schwarzacher, W., blood traces in snow,

III, 169.

Schwarzenbach, G., and Lutz, K., dissociation constant measurements on mesomeric acids and bases; resonance energy, I, 47. Dissociation constant measurements on unstable substances. I, 47. Di-imides of enolisable diketones and dialdehydes, II, 33.

Suter, H., and Lutz, K., variation of dissociation constants with temperature, I, 47.

Schwarzhoff, E., and Vosschulte, K., effect of ovary on blood formation in guineapigs and rabbits, III, 323.

Schwarzschild, L., comparison of old tuberculin (Koch) and modified tuberculin (Mellon and Beinhauer), III, 54.

Schwarzwald, K. See Mitchell, S. Schweers, A., disturbance of carbohydrate metabolism in diphtheria, III, 122. Schweitzer, A. See Buttle, G. A. H.

Schweitzer, C. E. See Riegel, B., and Smith, P. G.

Schweitzer, T. R. See Hoffman, C.

Schwenk, W., blood-iodine in infancy, III,

Schwerin, P. Seo Haurowitz, F.

Schwinger, J., neutron scattering in o- and p-hydrogen and range of nuclear forces, I, 68.

See also Corben, H. C., Oppenheimer, J. R., and Rarita, W.

Sciclounoff, F. See Junet, R. Scoffeld, O. S., Wilcox, L. V., and Blair, G. Y., boron absorption by sunflower

Scott, A. W., and Burns, J. M., 2:4-dihydroxybenzaldchydc-2:4-dinitrophenylhydrazone, II, 66.

and Kearse, W. O., Beckmann rearrangement of 2:4-dihydroxybenzhydroxamic acid derivatives, II, 64.

Scott, C. C. See Scott, V. B. Scott, D. A., and Fisher, A. M., bison zinc-insulin crystals and human zinc-insulin crystals, III, 186.

and Mendive, J. R., carbonic anhydrase, III, 703, 922.

See also Iyengar, N. K.

Scott, D. W. See Pitzer, K. S.
Scott, E. L. See McBride, J. J.
Scott, E. W. See Machle, W.
Scott, G. H., electron microscope study of calcium and magnesium in smooth muscle, III, 658.

See also Cowdry, E. V

Scott, G. W., jun., and Haskins, C. P., proton accelerator for quantitative irradiation of living matter, III, 1086.

Scott, J. G., hereditary optic atrophy with dominant transmission and early onset, III, 1001.

Scott, J. P., and Jones, A. M., sulphathiazole in treatment of pneumonia in infants and children, III, 459.

Scott, K. G. See Erf, L. A. Scott, L. D., concentration and detoxification of human urine for biological pregnancy diagnosis, III, 269. New diazo-methods for determination of bilirubin in blood and urine, III, 948. See also Rubenfeld, S.

Scott, O. E., and Conant, J. S., transfusions following hæmolytic transfusion reaction due to Rh and anti-Rh factors, III, 964.

Scott, P. See Hallpike, C. S. Scott, R. B., calibration of thermocouples at

low temperatures, I, 89. Scott, R. C., control of coast disease on

Thistle Island, III, 282.

Scott, R. D. See Cowan, S. L.

Scott, R. O., colorimetric determination of iron with sodium salicylate, I, 220.

Scott, T. F. M. See Bridge, E. M. Scott, T. G., methods and computation in

fæcal analysis with reference to the red fox, III, 890.

Scott, V. B., Graham, J. S., and McCartney, D. H., exocrine pancreatic secretion

in fasting dog, III, 513.
and Rudolph, H., improved intubation tubes for insufflation anosthesia in dogs, III, 615.

Scott, C. C., and Bugel, H. S., relation of fasting external pancreatic secretion to hunger, III, 1015.

Scott, W. C. M., psychiatric aspects of effort syndrome, III, 653.

Scott, W. E. See Ruzicka, L.

Scott-Moncrieff, R. See Lawrence, W.J. C. Scoz, G., Bergami, G., and Castaldi, L., coagulation time (concentration of prothrombin) in human tubercular blood, III, 328. Effect of synthetic vitamin-K (2-methyl-1:4-naphthaquinone) on coagulation time (concentration of pro-thrombin) of tubercular blood, III, 329.

Scribner, E. J. See Krueger, A. P. Scruggs, W. See Necheles, H. Scudder, J., Corcoran, D. R., and Drew, C. R., blood preservation, III, 416. Sec also Drew, C. R.

Scudi, J. V., colorimetric determination

of vitamin- $B_0$ , III, 685. Bastedo, W. A., and Webb, T. J., formation of vitamin-B<sub>6</sub>-borate complex, II, 53.

and Buhs, R. P., stable derivative of 4-amino-3-hydroxybenzencsulphon-

amides, II, 206. Scull, C. W., metabolic aspects of rheumatoid diseases, III, 784.

and Pemberton, R., formol-gel reaction in blood of patients with chronic rheumatoid diseases, III, 420.

See also Pemberton, R., and Spackman, E. W.

Scupham, G. W., De Takáts, G., Van Dellen, T. R., and Beck, W. C., vascular diseases, III, 80.

Seaborg, G. T., and Friedlander, G., radioactive isotopes of osmium, I, 189.

Gofman, J. W., and Kennedy, T. W., radioactive isotope of protoactinium, 1, 189. Livingood, J. J., and Friedlander, G., radioactive isotopes of germanium, I,

188.

See also Segrè, E. Seal, S. C., and Stewart, S. E., application of human serum opacity for evaluating antitoxin-binding power (LB) of Clostri-dium perfringens (type A) toxoid, III, 801. Sealey, J. L., and Marlow, H. W., fraction-

ation study of residual ovary, III, 440.

See also Sondern, C. W.

Sealock, R. R., Perkinson, J. D., jun., and Basinski, D. H., rôle of ascorbic acid in phenylalanine and tyrosine metabolism, III, 782.

Searle, G. F. C., determination of  $1/\lambda_2-1/\lambda_1$ 

for the  $D_1$ ,  $D_2$  lines of sodium, I, 185.

Sears, H. J., and Vinton, D., obligately anaërobic streptococci; resistance to heat and disinfectants, III, 143.

Sears, J. E., and Turner, A., direct-reading measuring microscope, I, 130.
Seaton, J. See Smith, H. F., jun.
Sebba, F., and Rideal, E. K., permeability

in monolayers, I, 297.

Sebrell, W. H., nutritional diseases in U.S.A., 111, 282.

Butler, R. E., Wooley, J. G., and Isbell, H., human riboflavin requirement estimated by urinary excretion of subjects on controlled intake, III, 893. See also Isbell, H., and Lillie, R. D.

Seckel, H. P. G. Sec Potter, E. L.

Sedallian, P., Morin, G., and Fournie, G., effect of spinal section or destruction on experimental tetany in guinea-pig, III,

Sedelnikov, G. S. See Makarov, S. Z. Sedgwick, F. P. See Kubicek, W. G.

Sedletzki, L. D., paragenesis of elements and minerals in colloids of soils and clays, 1, 308.

and Ivanov, D., distribution of copper in main soil types of U.S.S.R., I, 308. See also Antipov-Karataev, I. N.

Seegal, B. C., and Loeb, E. N., effect of anti-placenta serum on development of fœtus in pregnant rat, III, 580.

Seegar, G. E., and Delfs, E., pregnanediol excretion after ovariectomy in early

pregnancy, III, 269.
Seegers, W. H., chemical properties of purified preparations of prothrombin and thrombin, III, 160.

and Smith, H. P., purification of pro-thrombin, III, 967.

Seeley, M. G. See Anderson, Ernest.

Seeley, S. W., and Anderson, E. I., spectrophotometer for measurement of optical filters, 1, 431.

Seely, S., work function and temperature, I, 93.

Seemann, H., bending and mosaic of singlecrystals in wide-angle [X-ray] diagram, I, 76.

Seeny, T. M. See Bieter, R. N. Seevers, M. H., and Shideman, F. E., effects of morphine and its derivatives on intermediary metabolism. I. Influence of morphine, codeine, thebaine on activity of several dehydrogenases and on respiration of rat cerebrum. II. Influence of thiamin deficiency on respiration of skeletal muscle and cocarboxylase content of tissues of normal and chronically morphinised rats, III, 689. Oxidative metabolism of skeletal muscle from chronically morphinised rats, III, 898. See also Shideman, F. E.

Segal, A. L. See Boyd, E. M. Segal, H. L., hæmorrhagic encephalopathy due to acetarsone, III, 618.

Segal, J., manifestation of subjective colour

vision, III, 346.

Segal, M. S. See Jankelson, I. R.

Segall, G., treatment of Addison's disease with pellets of synthetic deoxycorticosterone acetate implanted subcutancously, III, 349.

Segall, H. N., and Goldbloom, A., auricular paroxysmal tachycardia in infancy, III, 843.

Segaloff, A., and Nelson, W. O., growth and development of six generations thymectomised albino rats, III, 754. Segers, M., repetitive action of heart, III,

840.

Segre, E., and Seaborg, G. T., fission products of uranium and thorium produced by high-energy neutrons, I, 314.

See also Corson, D. R., and Fermi, E. Seibert, F. B., and Watson, D. W., isolation of polysaccharides and nucleic acid from tuberculin, III, 806.

See also Spiegel-Adolf, M. Seidel, A., Larionov, J., and Filippov, A., fluorescence of aqueous solutions of rare earth salts. I. Terbium, I, 150.

See also Gross, E. Seidl, F. G. P., east-west asymmetry of cosmic radiation at high latitudes, I, 95.

Seidlmayer, H., infantile post-influenzal purpura, III, 418. Pyuria in childhood, III, 448.

Seidman, L. R. See Dingle, J. H.

Seifter, J. See Sollman, T. Seifter, S. See Pillemer, L. Seijo, E. See Robinson, (Sir) R.

Seikel, (Miss) M. K., and Huntress, E. H., identification of organic compounds. IV. Triphenylmethyl ethers of cellosolves, carbitols, and related glycols, II, 132.

Seiler, L., action of ultra-violet radiation in ophthalmic tuberculosis, III, 667.

Seiple, H. H., [treatment of] staphylococcal septicæmia in diabetics, III, 756.

Seitz, C. P., and Rosenthal, C. M., effect of oxygen deprivation and strychnine administration on visual function; angioscotomas, III, 1000.

Seitz, F. See Sampson, J. B.

Seitz, IV., anaërobic photochemical oxidation of pyruvic acid by scrum, III, 333. Sekido, Y. See Nishina, Y. Selbach, H., photometric

studies on Lehmann-Facius cerebrospinal fluid test, III, 996.

Selbie, F. R., transplantable mammary fibroadenoma of rat showing sarcomatous changes, III, 771.

See also Hudson, R. V., and McIntosh, J. Raiston, A. W.
Seldon, T. H., device for warming cold refrigerated blood, III, 329.

See also Harper, S. B.

Seldowitz, M., treatment of dermatophytosis pedis with medicated insoles, III, 126.

Selegenev, V. See Djatschenko, M.

Selfridge, G., nutrition and ear, III, 12. Present status of vitamins in relation to 8th nerve and conduction deafness, III, 866.

Selig, S., relationship of dental infection to

arthritis, III, 770.

Seligman, A.M. See Shear, M.J.Seligmann, E., diphtheria, III, 537. Selinger, M.A. See Lindsay, J.W.

Selivanov, L. S., chlorine and bromine in massive crystalline rocks, I, 231.

Sell, H. M., and Best, A. H., phytosterol from buds and fruit of tung tree (Aleurites

fordii, Hemsl.), Ill, 715. Sellés, E., solubility of morphine in water; determination of coefficients of solubility, I, 296. Complexes of zinc with pyrocatechol, II, 249.

Selwood, P. W., and Preckel, R., structure of mercurous chloride vapour, I, 278.

See also Appleton, D. B., Morris, H., Preckel, R., and Turkevich, J.

Selye, H., effect of chronic progesterone overdosage on female accessory sex organs of normal, ovariectomised, and hypophysectomised rats, III, 196. Compensatory atrophy of adrenals, III, 349. Adaptation to estrogen overdose: acquired hormone resistance without anti-hormone formation, III, 510. Effect of dosage on morphogenetic action of testosterone, III, 576. Anæsthetic effect of steroid hormones, III, 578. Rôle of liver in detoxication of steroid hormones and artificial estrogens, III, 617. Pharmacological classification of steroid hormones, III, 867.

and Bassett, L., effect of deoxycorticosterone and testosterone on water and chloride metabolism, III, 572.

Bassett, L., and Nielsen, K., rat cage for metabolism studies, III, 1086.

and Friedman, S. M., action of various steroid hormones on testis, III, 355. Beneficial action of testosterone in experimental renal atrophy caused by ligature of ureter, III, 770.

and Nielsen, K., action of deoxycorticosterone on non-protein-nitrogen content of blood during uramia, III, 1005.

See also Thomson, D. L.

Selzer, A. See Friedman, M. Semah, F., toxicity of organs in experimental diphtheric intoxication, III, 141.

Semenenko, B. M. See Jaroslav, S. J.Semeniuk, G., growth stimulation of Diplodia zew, III, 389. Dissimilation of glucose by Chaetomium funicola, Cke. I. Glucose-carbon partition, III, 926.

Semenoff, B., sensitivity of dark-adapted eye during prolonged period of observ-

ation, III, 434.

Semenov, N. N., and Emanuel, N. M., investigation of intermediate products in autocatalytic reactions, I, 171.

See also Emanuel, N. M.
Sementschenko, V. K., density, heat capacity, and compressibility of solu-

tions of electrolytes, I, 36. and Schaschkina, T. I., effect of admixtures on mutual solubility of fused salts, I, 254.

Semetschkova, A. F., and Frank-Kamenetzki, D. A., reduction of earbon dioxide by earbon, I, 475.

Semischin, V. I., action of metals on water

of crystallisation. I. Aluminium. II. Zinc. III. Structure and properties of crystal hydrates, I, 18.

Semmens, C. S., nature of Feulgen reaction with nucleic acid, III, 316.

and Bhaduri, P. N., staining of nucleolus, III, 957.

Sen, B. N., velocity of sound in, and chemical reactivity of, bromine and iodine, I, 198.

Sen, D. C., camphor series. VI., II, 299. Sen, S. See Chatterjee, H. N.

Sen, S. N., composition of peptones. I., 111, 681.

Sendroy, J., jun., and Schultz, M. P., ascorbic acid and rheumatic fever. I., III, 119.

Senekji, H. A., polysaccharide seolex antigen for immunological diagnosis of hydatid disease, III, 810.

and Beattie, C. P., artificial infection and immunisation of man with cultures of Leishmania tropica, III,

Senerchia, F. F., and Livengood, H. R., [treatment of] Streptococcus viridans pneumonia, III, 527.

Sen Gupta, J. See Sen Gupta, K. K.
Sen Gnpta, K. K., and Sen Gupta, J.,
magnetite deposits near Daltonganj, Palamau district, with a note on electric

smelting, I, 183.

Senior, B. J., requirements of pigs for vitamin-A and -D, III, 29. Vitamin-D requirements of the growing pig, III, 522.

Senjavin, S. A. See Lozovoi, A. V.

Seo, M. See Wada, M.

Seraidarian, K. See Kerr, S. E. Serber, R. See Kerst, D. W.

Serdiukov, V. I., effect of heating gypsum on its micro-structure and crystal-optical properties, I, 18. Thermal dissociation of gypsum, and changes in its density at different temperatures, I, 342. Serebrennikova, M. T., conditions of precipitation of calcium arsenate, and

its properties, I, 383.

Serebriakov, P. A., formation of nitrogen oxides in a torch discharge of an ultrahigh frequency, I, 422.

Serebriani, S. B. See Kornev, K. A.

Serfass, E. J., vacuum tube relay, I, 349,

Sergent, E., antiscorpionic serum, III, 76.

Sergienko, S. R., catalytic transformations of ethylbenzene, II, 125.

Sergievskaja, S. I., and Preobrashenskaja, K. P., anæsthetics of naphthalene series. II. Esters of 4-alkylamino-1-naphthoic acids, II, 65.

Serizawa, S. See Fennel, E. A.

Seshachar, B. R., interstitial cells in testis of Ichthyophis glutinosus, III, 826.

Seshadri, K. See Subbaraya, T. S. Seshadri, T. R., and Veeraraghaviah, J., chemical investigation of Indian fruits. I. Bitter principles of pamparapanas

(Indian shaddock), II, 20. and Venkateswarlu, V., benzopyrone series. IV. Synthesis of karanjin, II,

See also Krishnaswamy, B., Murti, P. B. R., Rangaswami, S., Rao, K. R., Rao, P. S., Rao, V. S., Row, L. R.,

and Sastry, V. V. K.
Seshagiriah, K. N., physiology of pollination in Orchidaceae, Ill, 480.

Sesler, C. L. See Schmidt, L. II. Setb, B. R., Guest's law of elastic failure, I, 459.

Sethna, S. M., condensation of methyl phloroglucinolcarboxylate with ethyl acetoacctate, II, 107.

and Shah, R. C., Kostanecki-Robinson reaction. II. Propionylation and butyrylation of oreacetophenone and

its monomethyl ether, II, 20.

Setlur, S. A., and Nadkarny, V. V., action of phosphorus halides and thionyl

chloride on benzilie acid, II, 41.

Setterfield, H. E., and Sutton, T. S., polarised light in study of myelin degeneration. I. Degeneration after transsection of sciatic nerve of the white rat, III, 176.

Sevag, M. G., and Smolens, J., conjugation of streptococcal nucleoprotein, III,

Smolens, J., and Stern, K. G., isolation and properties of pigmented heavy particles from Streptococcus pyogenes, III, 710.
Sevitt, S., heparin and sulphapyridine in

bacterial endocarditis, III, 611.

Sevringhaus, E. L., dysfunctions of anterior pituitary, III, 439. Treatment of menopause, III, 673. Menstrual abnormalities of adolescence, III, 1009. See also Heller, E. J.

Sexl, T., pair emission of fluorine when bombarded with protons, I, 441.

Sexton, D. L., Pike, G. M., and Nielson, A., fatal exfoliative dermatitis from phenobarbital, III, 616.

Seyer, W. F., and Davenport, C. H., densities and surface tensions of cis- and trans-decahydronaphthalene between -30° and 180°, I, 458.

Seyler, L. W. See Graffagnino, P. Seymour, A. See Sadusk, J. F. Seymour, D. E., and Spring, F. S., tri-

terpenc resinols and related acids. XIII. Bromination of a-amyranonyl benzoate and  $\beta$ -amyranonyl acetate, II, 231.

Seymour, F. I., and Benmosche, spermatozoa seen under electron microscope, III, 1008.

and Koerner, A., artificial insemination, III, 1012.

Sgalitzer, K. E., morphogenesis of thyroid gland, III, 546.

Sguaitamatti, B. See Briner, E. Shabad, L. M. See Kleinenberg, H. E. Shabica, A. C. See Marker, R. E.

Shadanovskaja, K., Korolev, V., and Motschan, I., promotion of [catalytic activity of] tungsten by nitrogen and hydrogen, I, 273.

Shafar, J., epileptics in air-raids, III, 665. See also Worster-Drought, C.

Shafer, H. M. Sec Price, C. C. Shaffer, J. M. See Bieter, R. N. Shaffer, M. F. See Rake, G.

Shafiroff, B. G. P., and Bierman, J. R., absorption of radio-opaque substances from experimentally obstructed gall bladder, III, 107.

Doubilet, H., and Co Tui, effect of intramuscular injection of sodium citrate on prothrombin time of blood, III, 557.

Shah, N. M. See Deliwala, C. V., and

Kulkarni, D. R.
Shah, R. C. See Hidayetulla, M. S.,
Sethna, S. M., and Ullal, V. V.

Shah, S. V. See Airan, J. W. Shahane, R. Y., action of semicarbazide hydrochloride on  $\beta$ -p-anisylglutaconic anhydride, II, 364.

See also Bhagwat, V. K.

Shaikmahamud, H. S. See Linnell, W. H. Shallow, T. A., Fry, K. E., and Pulaski, E. J., effect of zine peroxide treatment of ulcers due to micro-aërophilic hæmo-

lytic streptococcus, III, 618.
Shalucha, B. See Avery, G. S., jun.
Shamleffer, V. See Muir, R. D.
Shand, W., jun. See Magee, J. L.
Shane, G. See Steacie, E. W. R.

Shanks, G., experiences with stored blood and "blood bank," III, 829.

See also Parks, A. E. Shannon, J. A., mechanism of renal tubular exerction of creatinine in dogfish, III, 273.

and Ranges, H. A., renal tubular excretion of creatinine in normal man, III, 1019.

Shannon, W. J., and Englis, D. T., copper in tomatoes, III, 482.

Shapiro, Herbert, paralysis produced in white rats by rachitogenic diet, III, 457. Centrifugal elongation of [egg] cells, and conditions of return to sphericity, and cleavage time, III, 954.

Shapiro, Hymin. See Calingaert, G. Shapiro, H. A., effects of extracts of human anterior pituitary glands on Xenopus lævis, III, 265.

Shapiro, N. See Sehiff, L. Shapiro, S., and Albert, M. M., allergy in production of pruritus ani, III, 1080.

Sharefkin, J. G., and Ritter, J. J.,  $\beta$ -tolylisopropyl alcohols, II, 250.

Sharkey, J. A., posterior pituitary solution in labour, III, 267.

Sharma, N. L., and Swamy, K. B., unusual occurrence of carbon in cavities of limestone, I, 436.

Sharp, D. G., Taylor, A. R., Beard, Dorothy, Finkelstein, H., and Beard, J. W., properties of isolated equine encephalomyelitis virus (Eastern strain), 111, 231.

See also Neurath, H., and Taylor, A. R. Sharp, E. A., Vonder Heide, E. C., and Good, W. H., vitamin-K activity of 2-methyl-1:4-naphthaquinone and amino-Ž-methyl-1-naphthol in hypoprothrombinæmia, III, 418.

Sharp, E. R. See McBain, J. W.
Sharp, P. F. See Struble, E. B.
Sharp, W. B., extraction of antigen from moulds, III, 1064.

Sharpe, J. C., hæmolytic jaundice, III, 416. Causes of sterile marriage, III, 875.

Sharpey-Schafer, E. P. See Hill, D. K. Sharpless, G. R., choline and epithelial hyperplasia in forestomach of rats, III,

and Metzger, M., arsenic and goitre, III, 891.

Shattock, P. M. F., and Mattick, E. C. V., subclinical staphylococcus mastitis in herds free from streptococcus mastitis and its effect on milk composition, III, 629.

Shaub, B. M., age of uraninite from McLear pegmatite near Richville station, St. Lawrence Co., N.Y., I, 63. Origin of pegmatites in Newry, Maine, I, 182. Occurrence and origin of babingtonite and other minerals from Quabbin Aqueduct, Massachusetts, I, 353.

Shaughnessy, H.J., and Zichis, J., infection of guinea-pigs by application of virus of lymphocytic choriomeningitis to their normal skins, III, 477.

Sec also Zichis, J.

Shaw, C. H., and Snyder, T. M., electron scattering in bromine gas, I, 1.

Shaw, E. B. See Thelander, H. E. Shaw, E. N. See Thompson, A. F., jun.

Shaw, F. B., jun. See Ryan, J. D. Shaw, F. H., action of alkali on chemical and physiological properties of adren-

aline, II, 321. Shaw, G. E., glass electrode, I, 20. and Hind, H. G., riboflavin in black pepper, III, 374.

See also Watson, A. F.

Shaw, G. S., analysis for acetylene, acetic acid, acctic anhydride, acctone, ethyl acctate, and mercury, II, 236.

Shaw, J. C., and Knodt, C. B., utilisation of  $\beta$ -hydroxybutyric acid by lactating mammary gland, III, 511. Sec also Landauer, W.

Shaw, J. H. See Mills, R. C.Shay, H., Gershon-Cohen, J., and Fels, S. S., gastric anacidity; its physiologic and clinical significance and

management, III, 876.

Gershon-Cohen, J., Fels, S. S., and Munro, F. L., fate of ingested glucose solutions of various concentrations at different levels of small intestine, III, 271. Gershon-Cohen, J., Munro, F. L., and

Spilet, H., determination of phenolred with Evelyn colorimeter, 111, 316.

Gershon-Cohen, J., Pasehkis, K. E., and Fels, S. S., inhibition and stimulation of testes in rats treated with testosterone propionate, III, 443. Influence of testosterone propionate on somatic growth in rat, III, 671.

Shdanov, A. P., registration of mesotrons by means of thick-emulsion photographic plates, I, 145. Peculiarities of splitting of atomic nuclei by cosmic rays, I, 288.

See also Filippov, A.

Shdanov, H. See Brager, A.

Shear, G. M., and Ussery, H. D., frenching of tobacco distinguished from thallium toxicity by spectrographic analysis, III,

Shear, M. J., Leiter, J., and Perrault, A., carcinogenesis. XIV. 3-Substituted and 10-substituted derivatives of 1:2-benzanthracene, III, 588.

Stewart, H. L., and Seligman, A. M., XIII. Tumours of carcinogenesis. spleen and liver in mice following introduction of hydrocarbons into these organs, III, 588. See also Sall, R. D.

Sheard, C., and States, M. N., concave grating photo-electric spectrophotometer, I, 222.

and Williams, M. M. D., skin temperatures of extremities and basal metabolic rates in individuals having

normal circulation, III, 212.
See also Brunsting, L. A., Giordano, A. S., Goodson, W. H., Kirklin, O. L., and Steffens, L. C.

Shebrak, A. R., production of a Triticum timopheevi × T. durum, var. Hordeiforme 010, amphidiploid by colchicine treatment, III, 941. Shebrovski, V. V. See Drinberg, A. J.

Shechmeister, I. L. See Salle, A. J.

Shedenov, V. N., development of venous sinus of human heart, III, 719.

Shedlovsky, T., and Smadel, J. E., electrophoretic studies in elementary bodies of vaccinia, III, 630.

See also Smadel, J. E.

Sheehan, D., and Marrazzi, A. S., sympathetic preganglionic outflow to limbs of monkeys, III, 745.

Sheehan, H. L., postpartum necrosis of anterior pituitary, III, 186.

Sheehan, J. C. See Bachmann, W. E. Sheely, C. Q., thermo-allotropic modifications of sulphur, I, 198.

Sheffer, H. E. See Hurd, C. B. Sheffeld, F. M. L., cytoplasmic and nuclear inclusions with severe etch virus, III, 1074.

Shejwalkar, B. G. See Prasad, M. Shelden, C. H., and Woltman, H. W., origin of fibrillary twitchings, III, 86. See also Craig, W. McK.

Sheldon, J. M., and Blumenthal, F., oral administration of ragweed oil in patients hypersensitive to ragweed oil, III, 1080.

See also Bohner, C. B., and Hensel,

Sheldon, W. H., myoepithelium in sweat gland tumours, III, 591.

Sheldrick, G. See Haworth, R. D. Shelesnyak, M. C., Rosen, S., and Zacharias, L. R., nasogenital relationship. III. Sexual function in female rats deprived

of sphenopalatine ganglia, III, 581. Shelezkov, P. S., tearing strength of agar gel, I, 13. Relation of freezing to concentration of agar gels, I, 43. Influence of sugars, alcohols, anions of organic acids, and of  $p_{\rm H}$  on rigidity of agar gels, I, 43.

Sheline, G. E. Sec Montgomery, M. L. Shellow, H., discoloration of nails due to nail enamel, III, 918.

Shelmire, B., excitant of poison ivy dermatitis, III, 56. Sodium perborate and poison ivy dermatitis, III, 619. Non-allergic nature of poison ivy smoke, III, 633. Cutaneous and systemic reactions observed during oral poison ivy therapy, III, 812.

Shelswell, J. See Sammons, II. G., and Thorpe, W. V.

Shelton, R. S. Sec Warren, M. R.

Shemin, D., Sproul, E. E., and Jobling, J. W., transmissible agent of Rous chicken sarcoma. I. Precipitation with basic proteins, III, 888.

Shen, G. See Ju, T. Y. Shen, T. H. See Huang, Y. W. Sheng-Han, S. See Richards, F. J. Shennan, R.J. See Lindsay, A.J.Shenolikar, G.S. See Limaye, D.B.Shenstone, A.G. See Van Voorhis, C.C. Shepherd, M., apparatus for volumetric gas analysis, I, 307. Glass stopcocks, I, 391.

and Bailey, H. W., apparatus for absorption or gravimetric determination of constituents of a gas mixture, I, 307. and Schuhmann, S., hazard of mercury

vapour in scientific laboratories. I. Mercury vapour in air of scientific laboratories, III, 791. and Sperling, E. O., manometric gas

analysis apparatus, I, 307.

See also Branham, J. R.

Shepherd, M. L. Sec Eriekson, B. N., and Hunscher, H. A.

Shepherd, P. R., treatment of wounds by hypertonic saline irrigation, III, 222

Sheppard, G. E., and Stranathan, J. D., effect of pressure on surface charge of an electret, I, 449.

Sheppard, P. A., anemometry, I, 349. Sheppard, S. E., structure of mesomorphic

phase of evanine dyes II, 304.

Lambert, R. H., and Walker, R. D., optical sensitising of silver halides by dves. III. Relation of sensitising to absorption spectra and constitution of dyes, I, 172. Sheps, C. G. See Cherniack, M.

Sherber, D. A., prothrombin time, III, 647.

Sheridan, E. T. See Fenn, W. O. Sherman, D. S. See Glicklich, E. A.

Sherman, F. Sce Struve, O.

Sherman, H. C... present significance of nutrition, III, 454.

See also Briwa, K. E., Conner, R. T.,
Kao, H., Lanford, C. S., and Van
Duyne, F. O.

Sherman, I. C., and Arieff, A. J., iodine absorption by scrum of epileptic patients on bromide therapy, III, 615.
Sherman, J. M., and Stark, P., ferment-

ation of disaccharides by Streptococcus thermophilus, III, 53. See also Niven, C. J., jun.

Sherman, W. B., Stanley, F., and Cooke, R. A., placental transmission of antibodies in skin-sensitive type of human allergy, III, 633.

See also Stull, A. Sherrill, J. W. Sec Mackay, E. M., and Wick, A. N.

Sherry, S., Friedman, G. J., Paley, K., Berkman, J., and Ralli, E. P., excretion of vitamin-C by dog kidney, III, 365. See also Friedman, G.J.

Sherwood, F. W. See Halverson, J. O. Sherwood, R. M., effect of mineral salts on amount and severity of perosis, III, 23.

Shettles, L. B., carbon dioxide tension and its relation to quiescence of spermatozoa in vivo, III, 576.

See also Hellman, L. M., and Maumenee, A. E.

Shibata, Keita, and Watanabe, Atsushi, catalytic action of complex metallic compounds, 1, 52.

Shibata, R., detoxicating hormone of the liver (yakriton). LXIII., LXVI., and LXVII. Effect of yakriton in large amount on blood picture including nuclear shift, III, 1018.

Shibata, S., 1:8-dihydroxy-2-methylanthraquinone, II, 298.

See also Satake, T.

Shibata, Y., and Matsumoto, E., catalytic oxidation-reduction of metallic complex salts. XII. Reduction of benzo-quinone by hydrogen in presence of [Pd en]Cl<sub>2</sub>, 1, 476. Shibata, Y., and Sakai, K., asymmetric oxidation. III. Inhibiting action of asymmetric organic acids on asymmetric oxidation, I, 52.

and Yamabe, T., catalytic reduction by means of complex metallic salts, I, 52.

Shibata, Z. See Tajiri, I. Shibuya, K., influence of radiant energy on phosphatase of carcinoma tissue, 111, 113.

Shideman, F. E., and Seevers, M. H., in vitro effects of morphine on respiratory metabolism of skeletal muscle, III, 898. Effect of morphine on in vitro respiration of tissues of rat, rabbit, and cat. Ill, 898.

See also Seevers, M. H.

Shields, J. B., Fairbanks, B. W., Berryman, G. H., and Mitchell, H. H., utilisation of calcium in carrots, lettuce, and string beans in comparison with the calcium of milk, III, 22. Mitchell, H. H., and Ruth, W. A.,

relative retention by growing rats of lead ingested in water and in food, and in soluble and insoluble forms, III, 129.

Shields, J.J., and Bowman, J.E., keratosis diffusa fœtalis (congenital ichthyosis),

Shields, J. R., and Coull, J., rate studies in electrochemical oxidation of phenol, I, 342.

Shiels, E. H. See Landis, E. M. Shigalov, V. P. See Smorodincev, I. A. Shih, H. E., Kennedy, J., and Huggins, C., chemical composition of uterine secretions, III, 358.

and Pai, H. C., hypernephroma of kidney, III, 681. Fibrosarcoma of kidney, III, 681.

and Wu, S. D., perirenal cyst, III, 681. Solitary cyst of kidney, III, 681.

Shih, W. See Hwang, M. S. Shils, M. E., Day, H. G., and McCollum, E. V., effect of aneurin deficiency in rats on oxeretion of pyruvic acid and bisulphite-binding substances in urine, III, 595. Urinary excretion of bisulphitebinding substances by human adults on thiamin-low diets, III, 1035.

Shima, I., relation of vagus to distribution of pigment in frog retina, III, 11. Action of blood irradiated with ultraviolet light or X-rays on migration of pigment in retina, III, 11.

Shima, S. See Okuda, T.

Shimkin, M. B., biologic testing of carcino-I. Subcutaneous gens. injection technique, III, 368. Toxicity of naphthaquinones with vitamin-K activity in mice, III, 530. Survival of mice with induced subcutaneous sarcomas, III, 1023.

and Andervont, H. B., comparative carcinogenicity of three carcinogenic

hydrocarbons, III, 276.

and Grady, H. G., carcinogenic potency of stilbæstrol and æstrone in strain C3H mice, III, 279. Mammary carcinomas in mice following oral administration of stilbœstrol, III, 578.
and Letter, J., induced pulmonary

tumours in mice. III. Rôle of chronic irritation, III, 368.

See also Andervont, H. B., Bryan, W. R.,

and Lorenz, E. Shimokawa, Y. See Asagoe, K.

Shinano, S., refractive indices of protein solutions, I, 209.

Shindo, M., blood platelets and pathological granules of neutrophils in ricediseased and B1-avitaminotic rats, III, 417. Treatment of thrombocytopenic purpura, III, 417. Hæmatology of encephalitis following rubella, III, 417. Blood count in infantile beriberi, infantile pre-beriberi, and infantile B-avitaminotic dyspepsia, III, 551.

ad Watanabe, S., hæmatology of glandular fever, III, 834. See also Okamoto, G.

Shindo, S. See Okuda, T.

Shingu, H., and Mutuda, N., polymerisation of unsaturated hydrocarbons. I. Acidcatalysed polymerisation of isobutylene. II. Comparison of phosphorus pentoxide and orthophosphoric acid as a polymerisation catalyst, I, 215. Shinkawa, T., blood vessels in experimental

fowl sarcoma faster injection of opaque substance], III, 19. Absorption from diseased joints with uranin solution. I. and II., III, 110.

Shinn, L. A., and Nicolet, B. H., determination of threonine by periodate, II, 208. See also Nicolet, B. H.

Shinn, M. B., colorimetric determination of

nitrite, I, 126.
Shinohara, K., and Hatoyama, M., pair production in field of an electron, I, 235. Pair production by y-rays from fluorine bombarded with protons, I, 314.

Shinomiya, C., organic molecular compounds. V. Crystalline, II, 9.
Shinowara, G. Y. See De Lor, C. J., and

Reinhart, H. L. Shipman, H. R. See Kempe, L. L.

Shiraishi, K. See Fukumi, H. Shiratori, S. See Toriyama, Y.

Shires, E. B. S., jun. See Clark, B. B. Shirley, J., and Horsfield, E. L., carboniferous limestone of Castleton-Bradwell Area, North Derbyshire, I, 231

Shirley, R.G. See Alexander, H.E.Shirmumskaja, E. A., and Charitonov, S. A., effect of cobra venom on cutaneous

receptors, III, 699.
Shirolkar, G. V., Uppal, I. S., and Venkataraman, K., sulphonation of ethylaniline, II, 8. Shishido, H. See Goto, Kakuzi.

Shive, B., Horeczy, J. T., and Lochte, H. L., tertiary naphthenic acids. I. Synthesis of 1:2:3:3-tetramethylcyclopentane-1carboxylic acid from camphor, II, 12. See also Kelso, E. A.

Shive, J. W. See Gilbert, S. G., and Marsh,

Shock, N. W., and Soley, M. H., effect of oxygen tension of inspired air on respiratory response of normal subjects to carbon dioxide, III, 849.

See also Soley, M. H.

Shoda, K., lactose content and Arakawa's reaction of human milk, III, 451. Influence of vitamin- $B_1$  on Arakawa's reaction and lactose content of human milk, III<u>,</u> 875.

Shohl, A. T., and Blackfan, K. D., intravenous administration of crystalline amino-acids to infants, III, 31.

Blackfan, K. D., and Diamond, L. K., cell opacity method for determination of cell volume on single drop of rat blood, III, 552.

and Farber, S., effect of A.T.10 (dihydrotachysterol) on rickets in rats produced by high-calcium, low-phosphorus diets, III, 522.

Sholl, L. B., Langham, R. T., and Thorp,

W. T. S., canine nephritis, III, 1020.

Shoppee, C. W., constituents of adrenal cortex and related substances.

XXXIX. Chemical proof for presence of oxygen in 3-position, II, 139.

and Reichstein, T., constituents of adrenal cortex and related substances. XXXVIII. Conversion of substance A into substance N. XLIV.  $\Delta^{11}$ -Dehydroprogesterone, II, 139, 259.

Shorr, E., endocrine problems in adolescence, III, 1009.

and Cohen, E. J., use of colchicine in detecting hormonal effects on vaginal epithelium of menstruating castrate women, III, 762.

Short, O. A. See Copeland, L. C. Shortley, G. H., and Menzel, D. H., physical processes in gaseous nebulæ. IX. Excitation of fractional multiplets by electron capture, I, 309.
Shoupp, W. E. See Haxby, R. O.
Shrader, E. F., Millman, S., and Kusch,

P., nuclear gyromagnetic ratios of chlorine isotopes, I, 152.

and Pollard, E., protons from deuteron bombardment of separated isotopes of

chlorine, I, 188.

Shrader, J. C. See Huber, C. P. Shrikhande, J. C., determination of ammoniacal and nitrate-nitrogen in decomposed plant material, III, 713.

Shriner, R. L., and Moffett, R. B., benzopyrylium salts. II. Ozonisation, II, 51. and Upson, R. W., dibenziminazoles from dibasic acids, II, 380.

and Witte, M., derivatives of coumaran. VII. Synthesis of isotubanol and isotubaic acid. VIII. Reductions in coumaranone series; synthesis of dihydrotubanol, II, 201, 371.

See also Snyder, H. R. Shrivastava, D. L. See Bhatnagar, S. S. Shrivastava, H., kinetics of saponification of esters in dilute solutions; effect of substitution on rate-determining factors, I, 51.

Shroff, H.P. See Alt, S.A., and Desai, R.D.Shryock, E. H. See Harrison, B. M.

Shu, F., glucose mobilisation of toad's liver, III, 14. Influence of calcium, potassium, sodium, and magnesium chlorides on minimal convulsant dose of strychnine, III, 41.

Shukov, I. I., and Dneprov, G. F., effect of sucroso on transport number, conductivity, viscosity, and [H'] of solutions of hydrochloric acid, I, 16. and Pigareva, Z. D., electro-osmotic

phenomena involving metal hydroxides,

I., I, 263.
Shuler, R. H., quantitative effects of implantation of cattle anterior pituitary on gonads of immature rat, III, 1007.

Shulvas-Sorokina, R. D., nature of anomalies of properties of Rochelle salt and relation to polymorphism, I, 158. Shumacker, H. B., jun., Firor, W. M., and

Lamont, A., toxin-antitoxin reactions in experimental tetanus, III, 805.

See also Firor, W. M., and Lamont, A. Shumway, W., stages in normal development of Rana pipiens. I. External form, III, 3.

Shupe, I. S., detection and determination of mono- and di-ethanolamine, II, 387. Colorimetric determination of pilocarpine and its separation from other alkaloids, II, 388.

Shuravley, E. F., stratification in ternary allylthiocarbimide-sulphursystems amines, I, 415.

Shurigina, E. A., bound water in iron and aluminium hydroxide sols, I, 40.

and Charin, S. E., colloid-chemical investigation of Chasov Yar clay No. 5, I, 12.

Shute, E. V., relationship between vitamin-E and cestrogens, III, 268.

Shuttleworth, R. G. See Rapson, W. S. Shyne, W. V., jun. See Young, R. C.

Shyu, J. S., anatomy of ganglion habenulæ and its connexion in mammals, III, 991. Sia, R. H. P. See Huang, C. H.

Sibaiya, L., hyperfine structure of ionised mercury lines, I, 138.

and Narasimhaiya, R. L., acoustic velocity in Rochelle salt solutions, I, 294. Ultrasonic velocities in solutions, I, 456.

Sibree, E. W., gas tensions in tissues in physiological conditions, III, 656. Gas tensions in tissues in pathological conditions, III, 847.

Siccardi, E. M., development of Jenynsia lineata, III, 156. Viviparity of Jenynsia lineata, III, 156.

Sicher, G. See Leuchtenberger, R.

Siday, R. E., y-ray transition of radiobromine, I, 394.
Siddiqi, A. W. See Masood, S.

Sideris, C. P., Krauss, B. H., and Young, H. Y., distribution of nitrogenous and carbohydrate fractions and other substances in exposed and covered pineapple sister shoots, III, 635.

Sidgwick, N. V., complex formation, I,

and Powell, H. M., stereochemical types

and valency groups, I, 29.
Sidorova, N. G., and Tzukervanik, I. P. condensation of alcohols with aromatic hydrocarbons in presence of aluminium chloride; condensation of cycloheptanol with benzene and toluene, II, 318.

Sidorova, O. A. See Vinokurov, S. I. Siebert, W. J., and Loose, F., absorption of sulphanilamide, III, 213.

Siedel, W., and Möller, H., mesobiliviolins. I. Constitution of mesobiliviolin; syntheses of mesobiliviolins IXa and XIIIa; ψ-mesobilibiviolin and ketourobilin, II,

380. Sieg, R. P., and Dehn, W. M., isomerism of guanidines, II, 62.

Siegal, S., and Allen, A. C., intercapillary glomerulo-sclerosis (Kimmelsticl-Wilson) and nephrotic syndrome in diabetes

mellitus, III, 1020. Siegel, A. E., vitamins and their deficiencies with reference to childhood, III, 373. Diabetes mellitus in infancy and child-

hood, III, 1041. Siegel, B. M. See Harris, L. Siegel, H. See Kove, S.

Siegel, S., diffuse scattering of X-rays by potassium chloride crystals, I, 195. transformation Order-disorder Cu<sub>3</sub>Au, I, 247.

and Cummerow, R., elasticity of crystals,

Siegel, S. A. See Diamond, J. S.

Siegler, S. L., and Beris, I., evipan soluble rectally in obstetrics, III, 913.

Siegmund, B., blood-alcohol level and inspiration of volatile lacquer solvents, III, 381.

Sievers, D. C. See Brant, J. H. Sifferlen, J. See Troisier, J.

Sigler, L. H., hyperactive carotid sinus reflex, III, 495.

Signore, F., charged particles in dust of atmosphero at Vesuvius, I, 60.

Sigurdsson, B., antigenic properties of living tissue cells, III, 723.

Sikinami, Y., Hosokawa, H., and Oba, M., glycogen content of blood and lymph, III, 419.

Silber, R. H., free amino-acids of lobster nerve, III, 853.

and Schmitt, F. O., free amino-acids in electrolyte balance of nerve, III, 87.

Silberberg,  $M_{\cdot}$ , and Silberberg,  $R_{\cdot}$ , changes in cartilage and bone of immature female guinea-pigs due to undernourishment, III, 115. Effects of ovariectomy and long-continued administration of anterior pituitary extract of cattle on skeletal tissues of immature guinea-pigs, III, 186. Effect of thyroidectomy and administration of anterior pituitary extract of cattle on growth of cartilage and bone of immature guinea-pigs, III, 187. Response of cartilago and bone of newborn guinea-pig to stimulation by various hormones, III, 238. Age changes of bones and joints in various strains of mice, III, 317. Effect of progesterone on growing cartilage and bone in immature guinea-pigs, III, 485. Effects of syngenesiotransplants and of extracts of anterior lobe of bovine hypophysis on age changes in long bones and joints of mice, III, 574. Response of cartilage and bone of growing mice to testosterone propionate, III, 870.

Silberberg, R. See Silberberg, M. Silberman, D. E. See Ratner, B.

Silcox, L. E. See Babbitt, J. A.
Sill, O. W. See Titus, A. C.
Sillén, L. G., X-ray studies on bismuth
oxychloride, oxybromide, and oxyiodide, I, 246.

and Aurivillius, B., oxide phases with a

defect oxygen lattice, I, 153. Siltzbach, L. E., and Nayer, H. R., Woldman's phenolphthalein test in intestinal tuberculosis, III, 512.

Silver, H., and Chiego, B., brittleness of nails (fragilitas unguium), III, 275.

Silver, Samuel, vibrations of molecules of tetramethylmethane type, I, 74. Silver, Solomon, Cushing syndrome, III, 96.

Nature of plasma-iodine, III, 729. Silverberg, M. G., and Heimann, H.,

p-phenylenediamine in fur workers; reactions to skin tests with dyes in asthmatics, III, 1058.

Silverberg, R. J. See Miller, J. J., jun.
Silverman, I. J., preparation of anti-M, anti-N, anti-A, and anti-B testing fluids, III, 727.

See also Wiener,  $A.\ S.$ Silverman, L., producing air-vapour mix-

tures in gas or fume chambers, I, 59. and Thomas, T. R., portable [gas] sampling unit, III, 820.

Silverman, M., and Werkman, C. H., production of acetylmethylcarbinol from pyruvio acid by a bacterial enzyme, III, 626. Adaptation of propionic acid bacteria to vitamin- $B_1$  synthesis, III, 1066.

Silverman, S., photo-electric turbidimeter, I, 222. Polarising properties of dyed cellophane films, I, 323. Silverman, W. S. See Eberhard, H. M.

Silvers, S. H., oral and anal irritation from chewing poison ivy leaves, III, 1056.

Silverstein, A., and Konzelman, F., cerebral fat embolism, III, 977.

Silverthorne, N., typing of meningococci, III, 802.

Brown, A., and Auger, W. J., treatment of pneumonia in infancy and childhood, III, 693.

Cameron, C., and Walker, A., development of antibodies in blood of rabbits by injection of freshly isolated strains of H. influenzæ typo "B" and phase I H. pertussis, III, 230.

Silvette, H., renal responses to repeated administration of post-pituitary extract. III, 508. Effect of pentothal sodium on urine output, III, 1051.

Sim, W. S. See Bolam, T. R.

Simada, H., constituents of bark of Fraxinus species, III, 945.

Simard, R. See Moricard, R.
Simburg, E. J., spontaneous cardiac rupture, III, 842.

Simeone, F. A., and Sarris, S. P., determination of serum-protein, III, 492.

See also Acheson, G. H.

Simesen, M. See Moller, K. O. Simha, R., removal of substituents from vinyl polymerides, II, 238.

Sec also Mark, H.

Siminovitch, D., and Levitt, J., relation between frost-resistance and physical state of protoplasm. II. Protoplasmic surface, III, 398.

See also Levitt, J. Simkins, S. See Bernstein, M.

Simmonds, S. See Du Vigneaud, V.

Simmons, J. S., immunisation against infectious diseases in United States Army, III, 809.

Simmons, R. W., and Norris, E. R., xanthopterin, fish anæmia factor, III, 961.

Simms, B. T., erythrocyte sedimentation in dogs, III, 6.

Simms, H. M. See Morgan, A. F. Simon, A. See Katzenelbogen, S.

Simon, F. A., experiments with histaminase, III, 232. Device for rapid performance of skin tests by scratch method, III,

Simon, F. I., determination of urobilinogen in urine, III, 770.

Simon, G., results of treatment of open [pulmonary] tuberculosis of puberty, III, 848.

Simon, H. A., value of tomogram for differential diagnosis of pulmonary abscess and empyema, III, 340.

Simon, K. T., urobilin and stercobilin exerction of infants with healthy liver after administration of decholin, III, 107. Simon, M. A. Sec Karsner, H. T.

Simonnet, H., and Michel, E., synergic and antagonistic factors in pituitary gonadotropic extracts, III, 1007. Production of antigonadotropin in absence of hypophysis, III, 1007.

and Robey, M., [biological, clinical, and therapeutic aspects of corpus luteum], III, 236.

Simonov, A. M., structure and properties of so-called p-diazoimines, II, 320.

See also Izmailski, V. A.

Simonov, G. B. See Kazarnovski, J. S. Simonov, J. P. See Popov, M. M. Simonova, E. F., variation of hydrophilic properties of root and leaves of sugar bect, III, 148.

Simonovskaja, A. V. See Kozlov, V. V. Simons, C., behaviour of Scopulariopsis brevicaulis towards choline, III, 924.

Simons, H. P., improved tangentimeter,

Simons, J. H., and Bassler, G. C., hydrogen fluoride as a condensing agent. XIV. Alkylation, II, 164.

Bond, R. L., and McArthur, R. E., preparation and properties of tri-

fluoromethyl compounds, II, 81. and Meunier, A. C., hydrogen fluoride as a condensing agent. XV. Preparation of esters and ethers, II, 288.

Passino, H. J., and Archer, S., hydrogen fluoride as a condensing agent. XIII. Sulphonation, II, 125.

See also Russell, A. S. Simonsen, J. L. See Gillam, A. E.

Simonson, E., and Enzer, N., effects of short rest pauses in standing and sitting position on efficiency muscular work, III, 790.

Kearns, W. M., and Enzer, N., effect of oral administration of methyltestosterone on fatigue in eunuchoids and castrates, III, 443.

Simpson, C. L. See Franseen, C. C.

Simpson, (Miss) D. M. See Price, W. C. Simpson, (Sir) G., and Robinson, G. D., distribution of electricity in thunderclouds, I, 225.
Simpson, G. K. See Mitchell, S.

Simpson, J. C. E. See Morice, (Miss) I. M.

Simpson, M. E., Evans, H. M., Fraenkel-Conrat, H. L., and Li, C. H., synergism of estrogens with pituitary gonadotropins in hypophysectomised rats, III, 267.

See also Evans, H. M., Fraenkel-Conrat,

H. L., and Li, C. H.Simpson, R. E. H., fatal pellagra in English schoolgirl, III, 285.

Simpson, W. L., experimental analysis of Altmann technique of freezing-drying, III, 827. Application of Altmann method to study of Golgi apparatus, III, 957.

See also Hnghes, J. G.Simpson, W. M. See De Kruif, P., and O'Leary, P. A.

Sinadski, N. E., extractives of human placenta, III, 875.

Sinclair, F., Friedlander pneumonia successfully treated with sulphapyridine, III,

Sinelnikov, K. D., Walter, A. K., and Ivanov, A. V., calorimetric determination of radiation loss of energy of fast electrons in lead. I, 285, 312.

Singal, S. A., and Eckstein, H. C., lipotropic action of sulphur-containing amino-acids and related substances, III,

Singer, E., survival of Rickettsiæ in cell-free media, III, 1076. Hormonal antigens of the anterior pituitary gland, III,

See also Evans, J. N.

Singer, K., lysolecithin and hæmolytic anæmia; significance of lysolecithin production in differentiation of circulating and stagnant blood, III, 832.

Miller, E. B., and Dameshek, W., hæmatological changes following following splenectomy in man, with reference to target cells, hæmolytic index, and lysolecithin, III, 961.

See also Dameshek, IV. Singewald, Q. D. See Butler, R. D. Singh, A. See Singh, M.

Singh, B. D. See Prasad, S. P.

Singh, B. N., Joule-Thomson and Joule effects for Bose-Einstein and Fermi-Dirae gas, I, 330. Thermodynamic functions for two-dimensional quantum statistics, I, 449.

and Rao, N. K. A., typical colour curves and their application for purity tests in physiological researches, III,

See also Chowdhuri, A. G., Kothari, D. S., and Prasad, S. P.

Singh, D., scattering of polarised light in colloids, I, 447.

Singh, M., and Singh, A., evanocamphoranilic acids and their rotatory powers, II, 19. Optical activity and chemical constitution. V. Rotatory powers of camphoranilic acids, a- and \( \beta-naphthylcamphoramic acid at various degrees of neutralisation, II, 299.

Singh, S. See Bahl, R. K.

Singleton, A. O. See Moore, R. M.
Singleton, F. G., and Pollard, C. B., reactions of aldehydes with amines.
II. New aldehyde reagent. III. N'-Acetyl-NN-dibenzyl-m-phenylenediamine, 102, 192.

Sinha, S. See Das Gupta, S. N.

Sinitzin, N. P., influence of ultra-frequent electric field on physicochemical properties of colloids, 1, 14.

Sinjakova, S. I., polarographic determination of indium and cadmium, I, 220.

Sinma, K., and Yamasaki, F., capture cross-sections for slow neutrons, I, 142. Sinnhuber, R. O. See Butts, J. S.

Sioli, F., hyperexeitability-epilepsy, III, 991.

Siris, I. E., case of osteitis fibrosa cystica with a pathological fracture and renal calculi cured by removal of parathyroid adenoma, III, 507.

Sirkin, J. K., and Diatkina, M. E., inductive effect, I, 323. Structure of naphthalene molecule, I, 323. Structure. ture of boron hydrides, 1, 401.

See also Gantmacher, A. R., Prileshaeva, E., and Vassiliev, V.

Sirlin, E. M., and London, A. H., influenzal meningitis [treatment and sulphapyridine], III, 785.

Sisa, M., starchy pollen, III, 714.

Sisakjan, N., and Kobjakova, A., water content as regulating factor in direction of action of invertase in plants, III, 471. Diurnal variations of biochemical indexes in plants, III, 711. Enzyme action as index of drought-resistance in cultivated plants. IV. Effect of withering on phosphorylation and dephosphorylation. V. Diurnal rhythm of trend of enzyme action in withering, III, 815, 937

Sisco, R. C., Cunningham, B., and Kirk, P. L., quantitative drop analysis. XIII. Formol titration of amino-nitrogen, II,

Sisido, K., synthesis of m-di- $\beta$ -phenylethylbenzene and its relationship to carcinogenic hydrocarbons, II, 164.

and Kato, S., action of aluminium chloride on  $\beta$ -phenylethyl chloride, II, 164.

Sislock, T. P., use of perchloric acid in digestion mixture for blood non-proteinnitrogen determination, III, 839.

Sisoeva, N. D. See Tischtschenko, V. E. Sisson, W. A., and Saner, W. R., effect of temperature and concentration of sodium hydroxide on the X-ray diffraction behaviour of raw and of degraded cotton, I, 327.

Sister, H. H., and Cheronis, N. D., ammonolysis. II. a-Halogeno-acids in liquid ammonia, II, 354.

Sitschev, N. A., natural d-xylose and its biochemical utilisation, 111, 525. Assimilation of natural d-xylose by animal organisms, III, 683. Sivertzev, A. P., isomerisation of n-heptane

and n-octane, II, 57.

Sizer, I. W., and Tytell, A. A., activity of crystalline urease as a function of oxidation-reduction potential, III, 533.

Skarstrom, C., and Beams, J. W., electrically driven magnetically supported vacuum type ultracentrifuge, 1, 91. Skaržyński, B. See Euler, H. von.

Skelding, A. D. See Stiles, W.

Skerrett, N. P., and Thompson, N. W., photolysis of mercaptans, I, 122.

Skinner, C. See Hoxworth, P. Skinner, E. N. See Phillips, A. Skinner, G. S., and Green, A. J., alkylation

of cyanophenylpyruvic ester, II, 11. Skinner, II. A., and Sutton, L. E., electron diffraction investigation of molecular structure of dilead hexamethyl, 1, 31. See also Davidson, N. R.

Skinner, H. H., asthma complicated by subcutaneous emphysema in children,

Skinner, H. W. B., soft X-ray spectroscopy of solids. I. K- and L-emission spectra from elements of first two periods, I, 21.

See also O'Bryan, H. M.

Skipski, V. P. See Ermakov, N. V.
Sklar, A. L. See Elliott, M. A.
Skljarenko, S. I., Baranaev, M. K., and
Meshueva, K. I., effect of films of surface-active substances on evaporation of solutions. II., I, 465.

and Sacharov, B. A., electrolytic preparation of cerium amalgam, I, 121.

See also Tscherkasova; E. M.

Skljarova, Z. Sce Mnrtazaev, A. Sklovskaja, O. S., and Gorbatschevskaja, V. G., supposed disintegrating action of proteolytic enzymes, III, 705.

Sklow, J. See Zondek, B.

Skobeltzyn, D. V., nature and constitution of cosmic radiation, I, 288.

Skobetz, E. M., and Kavetzki, N. S., reversible glass-sodium electrode, 1, 378. and Kleibs, G. A., indicator electrodes made of mixtures of electrolytically conducting salts, I, 390.

Sec also Plotnikov, F. A.
Skorodinskaja, V. V., regeneration of corneal epithelium in preserved eyes,

Skowronska, H. See Mull, J. W.

Skrabal, R., determination of alcohols in dilute aqueous solution, II, 386.

Skramlik, E. von, rhythm of biological processes, III, 1021.

Skriptschinski, V. V., vernalisation of rice,

Skrjabin, A. K., isotherms of adsorption and of surface tension, I, 37. General law of liquid friction and application to calculation of resistance to motion of disperse systems. I. Equations of Newton,

Maxwell, and Bingham, I, 40.

Skuratov, S. M. Sce Popov, M. M.

Skvirskaja, E. V. Sce Epelbaum, S. E.

Slack, F. G. Sce Rudnick, P.

Slade, H. D., Wood, H. G., Nier, A. O., Hemingway, A., and Werkman, C. H., utilisation of carbon dioxide by heterotrophic bacteria, III, 925.

Slater, E. C., thiochrome method of determining ancurin in urine, milk, and cereal products, III, 596.

and Rial, E. J., aneurin (vitamin- $B_1$ ) content of Australian wheat products, III, 595.

See also Clements, F. W.

Slater, J.C., theory of transition in KH2PO,, I, 101.

Slater, S. N., synthesis of 1-methyl-6isopropylphenanthrene, II, 126.

See also Robinson, (Sir) R.

Slaughter, D., and Lackey, R. W., effect of morphine sulphate on serum-cholineesterase, III, 695.

Parsons, J. C., and Munal, H. D., prostigmine and morphine [as analgesics], III, 465.

Treadwell, C. R., and Gales, J. W., influence of prostigmine on excretion and blood level of morphine, III, 1052.

Slaughter, J. C. See Evans, T. C. Slavntzkaja, I. M. See Gorenbein, E. J. Sleight, V. G., molybdenite at Magnet Cove, Arkansas, I, 353.

Slepztov, M. M., ontogenetic and phylogenetic development of osteocranium of Odontoceti, III, 317.

Sletzinger, M. See Kamp, J. van de. Slipper, S. E., geochemical prospecting; gas and oil exploration, I, 64.

Slive, A., Bachrach, W. H., and Fogelson, S. J., significance of nutrition and gastric acidity in ætiology of experimental peptic ulcer, III, 581.

Sloan, L. L., testing of light sense, III, 90.

Slobodin, J. M. See Krauze, M. V. Slobodski, A. G., and Chmelevski, V. I., reaction of aeraldehyde with anthracene, II, 322.

Slobody, L. B. See Benson, R. A. Slocum, D. B., bilateral coracoelavicular joint, III, 951.

Sloman, H. A. See Barr, G. Slone, J. See Guy, W. H. Slonimski, G. See Kargin, V.

Slot, G. M., barbiturate (soneryl) poisoning, III, 465.

Slotin, L. See Brunschwig, A., and Evans, E. A., jun.

Slovochotova, T. A. See Turova-Pollak, M. B.

Slutzkaja, M. M. See Riss, I. G.

Slye, M. See Wells, H. G.

Smadel, J. E., Pickels, E. G., Shedlovsky, T., and Rivers, T. M., observations on mixtures of elementary bodies of vaccinia and coated collodion particles by means of ultracentrifugation and electrophoresis, III, 630.

and Wall, M. J., soluble antigen of lymphocytic choriomeningitis. Independence of anti-soluble substance antibodies and neutralising antibodies, and rôle of soluble antigen and inactive virus in immunity to infection, III,

477.

Ward, S. M., and Rivers, T. M., infectious myxomatosis in rabbits. II. Demonstration of second soluble antigen associated with the disease, III, 55. See also Hoagland, C. L., and Shedlovsky,

Small, L. See Ruberg, L.

Smelo, L. S. See Wunderly, H. L. Smelser, G. K., attempt to produce dinitrophenol cataracts in hypothyroid rats, III, 864.

and Levin, L., antagonism by pituitary extract in absence of thyroid, III, 574. Smelser, H. W. See Nightingale, (Miss) D. Smiley, K. L. See Niven, C. F., jun.

Smirnov, A. I., Pschennova, K. V., and Asmaev, P. G., poisoning of tobacco polyphenoloxidase by cyanide and carbon monoxide, III, 469. and Tschigirev, S. D., manometric

method of determining gas exchanges in respiration of plant material, III, 711.

Smirnov, A. J. See Gorochovski, J. N.
Smirnov, E. A., separated auxo-enoid systems. XIII. Colour phenomena in 3:5-dinitrobenzoyl derivatives of aromatic amines, and the analogy of these compounds to molecular compounds, II, 290.

Smirnov, L. V., scattering of light by coarse acrosols. I., I, 11.

and Bashenov, N. M., scattering of light by coarse acrosols. II., I, 11. Smirnov, M. V. See Esafov, V. I.

Smirnov, P. A., determination of iodine in soil waters, I, 385.

Smirnov, V. A., and Isakov, E. N., determination of silicic acid in silicates, I, 127. Smirnova, A. D. See Erschler, B.

Smirnova-Zamkova, A. J., changes of argentophil tissue in senility, III, 69. Cellular theory and pathology, III, 203. Smith, A. E. See Beeck, O., and Boyd, E. M.

Smith, A. F. See Black, D. A. K. Smith, A. H., Barnes, D. J., Meyer, C. E.,

and Kaucher, M., metabolism of citric acid by infants, III, 32.

and Meyer, C. E., effect of ancurin deficiency on citric acid excretion, III, 595.

See also Kleiber, M., Kuether, C. A., and Pickens, M.

Smith, A. K., Handler, P., and Mrgudich, J. N., reaction of formaldehyde with amino-acids; X-ray diffraction patterns, II, 60. See also Circle, S. J.

Smith, A. L., clinical value of cardio-phonograph, III, 841.

Smith, A. M., and Wang, T., cystine and methionine in species of grassland herbage, III, 483.

See also Corner, H. H.

Smith, A. R., toxicity of paint removers, III, 1058.

Smith, B., jun., oxytocic assay of posterior pituitary fractions, III, 870.

Coon, J. M., Fourt, P., and Geiling, E. M. K., assay of posterior pituitary solution, III, 870.
Smith, B. F. See Williams, Ray D., and

Woltman, H. W.

Smith, C., and Ireland, L. M., thymus of mammal. I. Distribution of argyrophil fibres from birth through old age in thymus of mouse, III, 414.

Smith, C. G., ring discharge, I, 357. Smith, C. H., infectious lymphocytosis, III, 965.

Smith, C. M. See Adams, R.

Smith, C. Scudder, high rotational speeds in vacuum, I, 132. Focussing X-ray monochromators, I, 348.

Smith, Clayton S. See Cavallito, C. J. Smith, C. S., jun. See Biscoe, J. Smith, D. C., effect of denervation on

response to adrenaline in isolated fish scale melanophores, III, 754.

Smith, D. J. W., epidemiology of Q fever. VIII. Transmission of Q fever by the tick Rhipicephalus sanguineus, III, 1076. Smith, D. L. See D'Amour, F. E., and Ravenel, S. F.

Smith, D. M. See Mitchell, J., jun.

Smith, De S., and Lindsley, C. H., inhibition or proteinases of Clostridia by serum, III, 1068.

Smith, David T. See Smith, S. G. Smith, Dudley T. See Rosenholtz, J. L.

Smith, Earle. See Militzer, W. E.

Smith, Emerson, and Young, A., kidney tumours, III, 365.

Smith, Erma, and Penrod, K. E., bloodsugar, insulin, and dextrose tolerance in rat treated with carbon monoxide, III, 564.

Smith, E. C. See Nichols, M. L.

Smith, E. J. R., sulphur-containing compounds and sulphapyridine, III, 290.

Smith, E. L., action of sodium dodecyl sulphate on chlorophyll-protein compound of spinach leaf, III, 939. Chlorophyll-protein compound green leaf, III, 939.

and Bergmann, M., activation of intestinal peptidases by manganese,

and Pickels, E. G., effect of detergents on chlorophyll-protein compound spinach studied in ultracentrifuge, III, 1061.

See also Vickery, H. B.

Smith, Edgar R., b.p. of benzene, ββγ-trimethylbutane,  $\gamma$ -ethylpentane, and  $\beta\beta\delta\delta$ -tetramethylpentane within the pressure range 100-1500 mm., I, 199. and Taylor, J. K., standard electrode

potential of sodium, I, 213.

Smith, Edward R., action of manganese on uterus pertinent to its use in dysmenorrhœa, III, 874.

Smith, E. R. B., comparison of effects of large doses of calcium gluconate idonate, calcium gluconate, and calcium chloride, III, 917.`

Smith, F., constitution of arabic acid. V. Methylated arabic acid, II, 29.

See also Haworth, W. N., and Luckett, (Miss) S.

Smith, F. B., and Cooke, R. T., acute fatal hyperparathyroidism, III, 261.

Smith, F. E., jun., Riley, R., and Jones, O. R., sulphapyridine therapy in pneumonia, III, 608.

Smith, F. G., solution and precipitation of lead and zine sulphides in sodium sulphide solutions, I, 56.

Smith, F. M., correlation of pathology and symptoms of coronary artery disease, III,

Smith, F. R. See Tarassuk, N. P. Smith, F. W. G., intra-cranial pressure

during general anæsthesia, III, 913.
Smith, G. B. L. See Coleman, S. A., and Scholnik, S. S.

Smith, G. F., and Duke, F. R., cerate

oxidimetry; determination of glycerol, II, 386.

and May, R. L., use of bromate in volumetric analysis; determination of arsenic and antimony using internal indicators at ordinary temperatures, I, 426.

and Taylor, W. H., electric heating mortar for use in carbon and hydrogen micro-combustions, I, 283.

Smith, G. M. See Burr, H. S. Smith, G. McPhail. See Haendler, H. M. Smith, G. Van S. See Smith, O. W.

Smith, Gerald W. See Fay, T.

Smith, Grant W., and Sorg, L. V., measurement of boundary tension by the I. Aliphatic pendent-drop method. alcohols, I, 256.

Smith, H. Sec Lonsdale, K.

Smith, H. A., and Levenson, H. S., kinetics of esterification of cyclohexanoic acid and of saponification of its ethyl ester,

and Reichardt, C. H., acid-catalysed esterification of normal fatty acids,

I, 214.

Smith, H. F., jun., and Seaton, J., acute response of guinea-pigs and rats to inhalation of vapours of isophorone, III, 296. Acute response of guinea-pigs and rats to inhalation of vapours of tetraethyl orthosilicate (ethyl silicate), III, 299.

Smith, H. P. See Cullen, S. C., and Seegers, W. H. Smith, H. W. Seo Goldring, W.

Smith, J. A. B. See Owen, E. C.

Smith, J. H., and Quinn, E. L., absorption rates of carbon dioxide in sodium carbonate solutions, I, 462.

Smith, J. H. C., absorption of carbon dioxide by unilluminated leaves, III, 400.

Smith, J. J. See Stewart, H. J. Smith, J. M., jun. See Lutz, R. E.

Smith, K. A., and Mason, H. L., thiamin and diabetes mellitus, III, 24.

Smith, K. E., measurement of red blood cell diameter by diffractometer, III, 323. Smith, K. U., dry-ico freezing unit for

cutting frozen [brain] sections, III, 160. Smith, L., and West, P. W., interferences occurring with selected drop reactions, I, 345.

Smith, L. A. See Rivers, A. B.

Smith, Lucian A., and Allen, E. V., rate of venous blood flow, III, 335. Time required for blood to flow from arm and from foot of man to carotid sinuses. II. Effect of operation and of administration of thyroid gland; postoperative phlebitis and pulmonary

embolism, III, 651.
Allen, E. V., and Craig, W. McK., time required for blood to flow from arm and from foot of man to carotid I. Effect of temperature, exercise, increased intramuscular tension, elevation of limbs, and sym-

pathectomy, III, 651.

Smith, L. E. See Bowen, C. V., and Gersdorff, W. A.

Smith, L. G., fine structure of  $3.35\mu$ . band of ethylene, I, 4.

Smith, L. H., Hughes, J., and Hastings, D. W., electroshock treatment [of mental

disease], III, 861. Smith, L. I., and Bayliss, M., Bodroux-Tschitschibabin and Bouveault alde-

hyde syntheses, II, 292.

and Byers, D. J., reaction between quinones and metal cnolates. XII. Dibromo-m-xyloquinone and sodiomalonic ester, II, 144.

and Guss, C. O., polyalkylbenzenes. XXVII. Preparation of pure ethylbenzenes. XXVIII. Physical properties of tetraethylbenzenes. XXIX. Jacobsen reaction. VII. XXX. Nitration of tetra-, penta-, and hexaethylbenzenes; bromination of the tetraethylbenzenes, II, 6.

and Hoehn, H. H., reaction between lithium and diphenylacetylene, II, 246. Reaction between diphenylketen and arylacetylenes. II. p-Tolyacetylene. III. a-Diphenylacetyl-β-phenylacetylene. IV. Synthesis of 1:4-diphenyl-β-naphthol. V. Diphenylacetylene. VI. Mechanism, II, 249.

Smith, L. I., and Irwin, W. B., structures of arylhydrazones of unsymmetrically substituted quinones, II, 193.

and King, J. A., vitamin-E. XXX. Condensation of butadiene and of crotyl systems with trimethylquinol, II, 287.

Kolthoff, I. M., Wawzonek, S., and Ruoff, P. M., vitamin-E. XXIX. Behaviour of compounds related to vitamin-E at the dropping mercury electrode, I, 270.

and Opie, J. W., reaction between quinones and metal enolates. XIII. Trimethylethylbenzoquinone sodiomalonic ester. XIV. Synthesis of three 6-hydroxy-3-carboxy-Bz-dimethylethylcoumarins and their ethyl esters, II, 201. Vitamin-E. XXVIII. Synthesis of three dimethylethylbenzoquinones, II, 298.

and Spillane, L. J., polyalkylbenzenes. XXXI. Preparation and physical properties of 1:2:3-trimethylbenzene

(heminiellitheno), II, 6.

Smith, L. P., and Hartman, P. L., formation and maintenance of electron and ion beams, I, 140. Smith, L. W. See Sand, M. E.

Smith, M. A., and Purves, C. B., chemical constituents of cottonseed hulls; partial separation by non-chemical methods, III, 541.

Smith, M. C., and Otis, L., sex variation in utilisation of iron by anæmic rats, III,

and Spector, H., calcium and phosphorus metabolism in rats and dogs as influenced by ingestion of mineral oil, III, 22. Action of vitamin-D, III,

Smith, M. E., and Pollard, C. B., derivatives of piperazine. XIX. Reactions with arylsulphonyl chlorides and sul-

phonic acids, II, 149.

Smith, M. G., Lennette, E. H., and Reames, H. R., isolation of virus of herpes simplex and demonstration of intranuclear inclusions in case of acute encephalitis, III, 395.

and Reames, H. R., serological relationship between viruses of Japanese B and St. Louis encephalitis, III,

Smith, M. I., chronic endemic selenium

poisoning, III, 619.
Lillie, R. D., and Stohlman, E. F., influence of dietary protein on toxicity

of sulphanilamide, III, 461.
and Stohlman, E. F., influence of dietary protein on toxicity of selenium, III, 2Ž2.

See also Emmart, E. W., and Westfall, B. B.

Smith, M. L., nomenclature of gas-gangrene toxins, III, 308.

Smith, M. P. See Menten, M. L.Smith, N. M., jun. See Van Allen, J. A.Smith, O. M. See Bryant, W. M. D.

Smith, O. W., and Smith, G. Van S., increased æstrogenic potency of human urine after zinc-hydrochloric

hydrolysis, III, 675.
Smith, P. E., anterior pituitary and other endocrine glands, III, 574.

Smith, P. G., and Schweitzer, C. E.,  $\xi$ -bromo-βζκ-trimethyl-n-pentadecane, II, 157.

See also Riegel, B. Smith, P. H. See Albright, F. Smith, P. K., changes in blood pigments associated with prolonged adminis-tration of large doses of acetanilide and related compounds, III, 127.

Winkler, A. W., and Eisenman, A. J., ratio of bromide to chloride in bodyfluids, III, 1054.

See also Winkler, A. W. Smith, P. R. See Hoff, H. E. Smith, R. See Hudson, R. V. Smith, R. E., and Hinshelwood, C. N.,

kinetics of thermal decomposition of

acetophenone, I, 118.
Smith, Robert E., mating and oviposition in Pacific Coast tree toad, III, 192. Undescended testicle, III, 1009.

Smith, R. L. See Watson, K. M. Smith, R. P. See Taylor, H. E.

Smith, Rodney P. See Johnson, G. C.

Smith, Sidney. See Roby, C. C. Smith, Sydney. See Dewing, T.

Smith, S. B., and Hoegberg, E. I., ternary systems. VII. Sodium phthalate-sodium carbonate-water, I, 416. Smith, S. G., Reiser, R., and Harrell, G. T.,

spontaneous recovery from nutritional macrocytic anæmia in young swine following initial æstrus, III, 960.

Smith, David T., and Callaway, J. L., dysfunction of sebaceous glands associated with pellagra, 11I, 776.
Smith, S. L., and Wood, W. A., X-ray

structure and elastic strains in copper, I, 31. Stress-strain curve for atomic lattice of iron, I, 367.

Smith, Wilfred. See Evers, N.

Smith, Wilson, cervical abscesses of guineapigs [due to Streptobacillus moniliformis], III, 931.

Smith, W. K. See Campbell, H. A. Smith, W. L. See Clayton, F. W. Smith, W. MacF. See Norrish, R. G. W.

Smithson, F., alteration of detrital minerals in Mesozoic rocks of Yorkshire, I, 356.

Smithwick, R. H. See Bentley, F. H. Smoilovskaja, E. J. See Magat, M. A.

Smolens, J. See Sevag, M. G. Smollar, L. See Hoyne, A. L.

Smoluchowski, R., theory of volume magnetostriction, I, 194. Volume magnetostriction of nickel, I, 455.

Smook, A. H., and Gaillard, P. J., influence of various metals on bone tissues. III, 2.

Smorgonski, L. M., and Goldfarb, J. L., action of acid chlorides on tetrahydrofuran, and derivatives of δ-diethylaminobutan-a-ol, II, 74.

Smorodincev, I. A., and Shigalov, V. P., comparative hydrolysis of muscleproteins, III, 176. Dissociation of muscle tissue proteins by successive action of proteases, III, 705.

Smorodinski, J., Compton effect of the mesotron, I, 443.

Smullen, G. See Kennedy, C. B. Smullin, C. F. See Schultz, R. F.

Smyth, C. J., ætiology of acute hæmorrhagic pancreatitis with special reference to vascular factors, III, 104.

Freyberg, R. H., and Peck, W. S., X-ray therapy of rheumatic disease, III,

Smyth, C. P., induction, resonance, and dipole moment, 1, 98. Dipole moment and bond character in organometallic compounds, II, 245.

See also Lewis, G. L., and Wiswall, R. H., jun.

Smyth, D. H., vitamin- $B_1$  and synthesis of oxaloacetate by Staphylococcus, III,

See also Chute, A. L.

Smyth, H. F., jun., Seaton, J., and Fischer, L., single dose toxicity of glycols and derivatives, III, 918.

Smyth, J. D., morphology of osmiophil

material in ciliates, III, 826.

Snaith, L., congenital cyst of larynx causing fatal asphyxia neonatorum, III, 340. Snamenski, A. V., adsorption accompanied

by chemical reaction, I, 10.

Snapp, E. See Berman, A. L., and Vance, R. W.

Snapper, I., and Wu, S. D., embryonal mixed tumour (Wilms' tumour) of kidney, III, 681.

Snedecker, L., hæmorrhagic disease of newborn, III, 967.

Sneeden, V. D., and Larson, C. P., internal hydrocephalus due to syringomyelia-like process of aqueduct of Sylvius, III, 855.

Sneider, M. E., rhythms of ovogenesis before sexual maturity in rat and cat, III, 191.

Snell, A. M., and Comfort, M. W., incidence and diagnosis of pancreatic lithiasis, III, 1015.

See also Bollman, J. L., and Weir, J. F. Snell, E. E., reversal by pantothenic acid of specific growth inhibition, III, 685.

and Mitchell, H. K., purine and pyrimidine bases as growth substances for lactic acid bacteria, III, 306.

and Peterson, W. H., growth factors for bacteria. X. Lactic acid bacteria, III, 1066.

and Wright, L. D., microbiological method for determination of nicotinic acid, III, 685.

See also Eakin, R. E., and Mitchell.

Snell, E. S., Aline, E., Couch, J. R., and Pearson, P. B., effect of diet on pantothenic acid content of eggs, III, 519.

Snell, G. D., induction of hereditary changes in mice by X-rays, III, 640.

Snelling, C. E., and Nelson, W., vitamin-Kin hæmorrhagic disease of newborn infant, III, 418.

Snider, O. See Kennedy, A. S.

Snow, G. A., and Zilva, S. S., action of l-ascorbic acid on in-vitro respiration of liver tissue from guinea-pigs on a restricted diet. II., III, 893.

Snow, J. See Sahyun, M. Snow, J. E., and Hines, H. M., effects of obstructive jaundice on polyarthritis in rats, III, 768.

Snow, J. S. See Wile, U. J.Snow, W. F. See Hazen, H. H.

Snowden, R. R., importance of allowing time for "physiological adjustment" in establishing diet in diabetes, III, 458.

Snyder, C. D., and Tyler, F. H., oxygen and carbon dioxide exchanges in turtle's liver, III, 106. Metabolism studies on surviving turtle's liver, III, 272.

Snyder, C.J. See Gardner, J.H. Snyder, F.F., and Lim,  $Kha\ Ti$ , effect of morphine and morphine derivatives on fœtûs, III, 1052.

Snyder, H., are there spin one mesotrons? I, 361.

Snyder, H. R., and Shriner, R. L., fractional distillation column, I, 179.

Snyder, J. C., and Mueller, J. H., nutritional factors concerned with colony development of C. diphtheriæ, III, 627.

Snyder, T. M., fluorescent K X-rays from ions in solution and from gases, I,

See also Bearden, J. A., and Shaw, C. H. Soaje Echagüe, E., circulatory disturbances produced by venom of Crotalus terrificus, III, 221.

Sobel, A. E., Kraus, G., and Kramer, B., determination of sodium [in serum] in presence of phosphates, III, 971.

and Sobel, B. A., determination of calcium in urine, III, 274.

and Spoerri, P. E., steryl sulphates. I. Preparation and properties, II, 250.

See also Kaye, I. A., Kogut, B., and Matzner, M.J.Sobel, B.A. See Sobel, A.E.

Sobel, I. P., essential hypertension in childhood, III, 654.

See also Leopold, J. S.

Sober, H. A. See Randle, S. B.

Sobotka, H., and Bloch, E., unimolecular films of saccharase [invertase], I, 110. and Kann, S., carbonic anhydrase in

fishes and invertebrates, III, 795. and Reiner, M., chemical composition of a lithia spring near McLeod,

Montana, I, 283

See also Peck, S. M., and Soffer, L. J. Sodeman, W. A., gout, III, 379. Chronic constrictive pericarditis, III, 974.

and Engelhardt, H. T., renal concentration test with use of pituitary extract, III, 1019.

Soderstrom, G. F. See Hardy, J. D.

Soderwall, A. L., induction of sexual receptivity in cestrogen-conditioned spayed female guinea-pigs by orally administered progesterone and pregneninolone, III, 101.

and Blandau, R. J., effectiveness of various methods of sex hormone administration for induction of heat in spayed guinea-pig and rat, III, 676.

and Young, W. C., effect of ageing in female genital tract on fertilising capacity of guinea-pig spermatozoa, III, 101.

See also Boling, J. L.

Soehring, K., xanthelasmatosis in early childhood, III, 379.

Soffer, L. J., Cohn, C., Grossman, E. B., Jacobs, M., and Sobotka, H., magnesium partition studies in Graves' disease and clinical and experimental hypothyroidism, III, 1003.

Sofue, N., influence of quinine and its derivatives on growth of tissue and sarcoma in tissue culture, III, 20. Fluorescence method for studying distribution of quinine and its derivatives in organs and tumour of rats, III, 37. Influence of quinine and its derivatives on rate of growth of Fujinawa's rat sarcoma, III, 113.

Soga, T., action of adrenaline on bloodsugar and muscle-glyeogen and its relation to liver, III, 95.

Sogabe, T. See Satoh, S.

Sogliani, G., convulsive shock therapy:

electric shock therapy, III, 990. Sohler, T. P., Lothrop, G. N., and Forbes, H. S., pial circulation of normal, nonanæsthetised animals. I. Method of observation. II. Effects of drugs, alcohol, and carbon dioxide, III, 696.

Lothrop, G. N., and Wilkinson, J., effect of sedative drugs on pial vessels, III, 1052.

Sokol, J. K. See Asher, L.

Sokolinski, A. D., gastric secretion in senility, III, 13.

Sokolov, A., scattering of mesons, I, 147. Quantum theory of emission of elementary particles, I, 147. See also Ivanenko, D.

Sokolov, A. N., reticulocyte counts, III, 828. Sokolov, A. S. See Bezrukov, P. L.

Sokolov, I. I., peptising effect of heat-treated gelatin, I, 13. Structure and physicochemical properties of disaggregated gelatin, I, 14. X-Ray examination of structure of gelatin, I, 114.

Sokolova, M. A. See Urazov, G. G. Sokolova, T. P. See Orechovitsch, V. N. Sokov, P. G., reactions of 2-aminopyridine with diketones. I. Reaction of 2-aminopyridine with benzil, II, 332.

Solandt, D. Y. See Magladery, J. W. Solandt, O. M. See Mayon-White, R. Solanki, D. N., and Subbarao, T. V., electrolytic determination of lead as peroxide, I, 306.

Solares, A., keratoconjunctival lesions observed at high altitudes in Bolivia, III, 862.

Soley, M. H., and Shock, N. W., rate of respiratory adjustment to postural change, III, 847.

See also Shock, N. W.
Solianikova, V. L., photo-colorimetric determination of vitamin-D, III, 599.

Soliman, G. See Zaki, A. Solis, J. A. See David, T. T. Soll, S. See Martin, H. E.

Soll, S. N. See Glass, S. J.

Sollins, I. V. See O'Leary, P. A. Sollman, T., and Seifter, J., toxicity of bismuth salts by intravenous injection, III, 1054.

and Webb, W., pharmacological responses of Daphne magna, III, 531.

Sollner, K., and Abrams, I., anomalous osmosis, I, 10.

Abrams, I., and Carr, C. W., structure and electrical behaviour of collodion membranes. I. and II., I, 258, 466. See also Carr, C. W.

Solmssen, U. V. See Lee, J.

Solntzev, V. I., variations in lipin metabolism, III, 31.

Solomachina, F. C. See Zakutskaja, M. A. Solomin, N. V., viscosity and structure of molten quartz glass, I, 406.

Solomon, A. K., half-life of <sup>11</sup>C, I, 441. Vennesland, B., Klemperer, F. W., Buchanan, J. M., and Hastings, A. B., participation of carbon dioxide in

carbohydrate cycle, III, 783. See also Ball, E.  $\check{G}$ ., and Conant, J. B. Solomon, H. A., treatment of subacute bacterial endocarditis, III, 527.

Solomon, H. C. See O'Leary, P. A. Solomon, J. C., treatment of behaviour and personality disorders of children, III,

666.

Solomon, M. L. See Rubinstein, H. S. Solomon, N. H. See Gordon, M. B. Solomon, S., and Kalkstein, M., toxic effect

of sulphamethylthiazole, III, 527. See also Kammerer, W. H., and Plummer,

Solomon, W., einchona alkaloids. VIII.
Niquine, II, 155.
Solomon, W. M., complication following use of cestrogen in spondylitis, III, 872. Solomonovitseh, A. See Chaikin, S.

Soloveva, L. R., stabilisation of suspensions by adsorption layers. XX. Titanium dioxide in hydrocarbon media, I, 82.

Soloviev, L. T. See Ilina, L. I. Solovieva, L. N., dispersion of metals in liquids by supersonic field, I, 11.

Solway, L. J. See Breslin, L. J.
Somaglino, J. C. See Novelli, A.
Somekawa, E., and Suzuki, Takao, production of seborrhea in rats by feeding with whale oil, III., III, 773.

Somkin, E., effect of renin on cardiac output, III, 563.

Sommer, A. L. See Sorokin, H.

Sommer, E. See Dirr, K.
Sommers, H. S., jun. See Oldenberg, O.
Somogyi, J. C., blood volume determination

in man with Geigy-blue 536, III, 963. Somogyi, M., changes in ketonæmia and

ketonuria during hypoglycæmia, III, 289. Diastatic activity of human blood, III, 649.

and Kirstein, M. B., changes in bloodketo-acids during artificial fever, III,

See also Weichselbaum, T. E. Somov, V. S., determining hydration. I. Analytical and refractometric methods, I, 255.

Sondern, C. IV., Sealey, J. L., and Kartsonis, P. L., oral estrogenic potencies of diethylstilbæstrol ethers, III, 677.

Sonne, C., theory of oxygen inhalation

therapy, III, 338. Sontag, L. W., effect of feetal activity on nutritional state of infant at birth, III,

Soong, H. Y. See Li, R. C.

Soós, J. von, essential weakness of splenic reticulum, III, 73.

Sorenji, E. T., Pasteur reaction. I. Testing of Szent-Györgyi's theory, III, 781. Kutscherova, E. L., and Fuks, K. M., variations in brain metabolism in bromocamphor epilepsy, 111, 690.

Sorg, L. V. See Smith, Grant W.

Sorge, J. See Mohler, H.

Sorokin, A. M., dissociation pressure of monocalcium orthophosphate crystal hydrate, I, 415.

Sorokin, H., and Sommer, A. L., effects of calcium deficiency on roots of Pisum

sativum, III, 61.

Soroos, H., and Willis, H. B., preparation of BB- and yy-dimethylpentane, II, 157.

See also Calingaert, G.

Sorsby, A., experimental degeneration of retina, III, 259. Experimental pigmentary degeneration of retina sodium iodate, III, 259.

Soru, E., and Combiesco, C., chemical properties of typhoid bacilli antigens, III, 933.

Sosa, H., culture medium for isolation of intestinal pathogenic bacteria, III, 228. Sosa Gallardo, J. B., effect of prolonged

administration of progesterone, III, 195. Soschestvenskaja, E. M., reaction of Grignard reagents with silicofluorides, II,

Sosedov, N. I., Vakar, A. B., and Drozdova. Z. B., determination of activity of proteolytic enzymes and protein-resistance in wheat, III, 923.

Sosimovitsch, D. P., variation of potentials

of lead in sulphuric acid solutions, 1, 269. Soskin, S., and Levine, R., action of insulin, III, 96.

Levine, R., and Hechter, O., relation between phosphate changes in blood and muscle following glucose, insulin, and adrenaline administration, III, 1041.

Soskin, S. See also Freed, S. C.

Soth, G. C. See Hill, A. E.
Sotola, J. See St. John, J. L.
Sotschevanov, V. G., introduction of thyratron into regulatory system of

thermostats, I, 129.

Souders, B. F. See Scheie, H. G.
Souders, H. J. See Erickson, B. N., and Hunscher, H. A.

Soule, M. H., the viruses, III, 231.

Soutar, T. H. See Percival, E. G. V. Souter, A. W. See Kark, R.

Southard, J. C. See Kelley, K. K. Southworth, II., action of sulphonamide and sulphathiazole in staphylococcal

bacteræmia, III, 607. Spackman, E. W., Bach, T. F., Scull, C. W., and Pemberton, R., X-ray studies of gastro-intestinal tract in 400 arthritics, IIĬ, 1017.

Spaeth, R., serum therapy of tetanus, III, 1072.

Spaid, J. D., evaluation of continuous spinal anæsthesia, III, 914.

Spain, L. A., reactions of grasshoppers to castor bean plants, III, 282.

Spain, W. C., Fuchs, A. M., and Strauss, M. B., gelatin-pollen extract for treatment of hay fever, III, 1081.

Westcott, F. H., and Gaillard, G. E., potassium chloride in treatment of allergic conditions, III, 56.

See also Strauss, M. B.

Spangenberg, K., ineffective supersaturation region and alleged dependence of saturation concentration on crystal structure of the solid phase, I, 371.

and Nitschmann, G., persistence of fine structure of faces of growing sodium chloride crystals. II. Morphological development of faces of growing sodium chloride crystals of type I with high supersaturation, I, 371.

Sparchez, T., and Viciu, E., clinical value of Takata-Ara test in liver diseases, III,

Spaulding, E. H., chemical sterilisation of surgical instruments, III, 612.

Speakman, J. C., dissociation constants and stereochemistry of stereoisomeric dibasic acids, I, 468.

Spealman, C. R., right atrium preparation

for studying pace-maker activity and amplitude of contraction, III, 559. Action of ions on frog heart, III, 840.

Spear, F. G., biological effects of fast neutrons, III, 223.

See also Glücksmann, A.

Speck, J. C. Sce Russell, A. Spector, H. Sce Smith, M. C. Spedding, F. H., Moss, C. C., and Waller, R. C., absorption spectra of europium ion in hydrated salts, I, 71.

Speel, H. C., mannitol and sorbitol in pharmacy, III, 619.

Speert, H., action of estrogens on mammary gland, III, 441. Gynæeogenie action of deoxycorticosterone in rhesus monkey, III, 871. Spees, A. H., and Zahn, C. T., specific

charge of the position, I, 140.

Speidel, B., physiology of "bleeding" in higher plants, III, 398.

Speidel, T. D., and Stearns, G., relation of

vitamin-D intake to age of infant at time of eruption of first deciduous incisor, III, 376.

Spektor, B. V. See Plotnikov, V. A.

Spence, A. II., testosterone propionate in functional impotence, III, 190. Preparations of testosterone in eunuchism and hypogonadism, III, 190. Local inunction of testosterone in chronic mastitis, III, 198.

Spence, II. S., uraninite and thucholite from Pied des Monts, Charlevoix Co.,

Quebec, I, 352.

Spence, J. C., feeding of children, III, 20. Nutrition and [dental] disease, III, 282. Spence, M.J. See Nyboer, J.

Spence, R., and Wild, W., photodecomposition of gaseous acctone. II., I, 480.

Spence, R. W., heat of mixing of chloroform with polyamines, I, 169.

Spencer, C. C., Weaver, W. I., Oberright, E. A., Sykes, H. J., Barney, A. L., and Elder, A. L., ozonisation of organic compounds, II, 57.

Spencer, E. C. See Macht, D. I. Spencer, E. L., effect of nitrogen nutrition on virus multiplication in tobacco, III,

Spencer, E. Y., and Wright, G. F., action of sodium alkoxides on lactones, II, 239. Action of diazomethane on lactones and lignins, II, 334.

Spencer, H. C. See Irish, D. D. Spencer, L. J., the Gibcon shower of meteoritic irons in South-West Africa,

Spencer, R. C., properties of the witch of Agnesi; application to fitting shapes

of spectral lines, I, 357.

Spencer, R. R., and Melroy, M. B., effect of carcinogens on small free-living organisms. I. Eberthella typhi. II. Survival value of methylcholanthreneadapted paramecium, III, 368, 589.

Speranski, A. I. See Postnikov, V. F. Sperling, E. O. See Shepherd, M. Sperling, G. See Barnes, L. L., and McCay, C. M.

Spero, G. B. See Huston, R. C.

Sperry, R. W., functional results of muscle

transposition in hind limb of rat, III, 657. Sperry, W. M., and Brand, F. C., cholesterol

esterase in liver and brain, III, 302. See also Waelsch, II.

Spicer, A. D. See Lindskog, G. E.Spiegel, E., and Wyeis, H., convulsive reactivity in hypercholesterolæmia, III,

Spiegel, E. A., rhythmic stimulation of labyrinth, III, 505.and Miller, H. R., stand for aseptic

operations with Horsley-Clarke's stereotaxic instrument, III, 855.

See also Oppenheimer, M. J. Spiegel, F. See Deichmann, W.

Spiegel-Adolf, M., and Henny, G.C., X-ray analysis of protein denaturation, II, 306.

Seibert, F. B., and Henny, G. C., X-ray studies on tuberculin proteins, III, 386. Spielhaczek, H., determination of silica in products containing fluorine, especially in cryolite, I, 426. Spielman, A. Sec Petersen, W. E.

Spies, J. R., recovery of cottonseed allergic protein from its picrate by electro-

phoresis, III, 621.

Bernton, H.S., and Stevens, H., chemistry of allergens. III. Solubility behaviour of an active protein picrate from cottonseed. IV. Electrophoretic fractionation of the polysaccharide fraction, CS-1A, from cotton-seed, Ill, 146, 1081.

Spies, T. D., Grant, H. M., and Grant, J. M., effectiveness of yeast-peanut butter mixture in vitamin-B complex deficiencies, III, 776. Ladisch, R. K., and Bean, W. B., human

vitamin-B<sub>6</sub> deficiency, III, 286.

Stanberry, S. R., Williams, R. J., Jukes, T. H., and Babcock, S. H., pantothenic acid in human nutrition, III, 118.

Swain, A. P., and Grant, J. M., clinically associated deficiency diseases, III, 115. See also Axelrod, A. E., Bean, W. B., Minnich, V., Riddle, J. W., and Warner, E. D.

Spikes, W. F. See Royer, G. L. Spilet, H. See Shay, H.

Spiliopoulos, G. See Choremis, K.

Spillanes, J. D., circulation time in effort syndrome, III, 337. Bell's palsy and herpes zoster, III, 430.

Spillane, L. J. See Smith, L. I.

Spindler, F. Sec Upham, R.
Spink, M. S., serum for clearing solid culture media, III, 307.

Spink, W. W., and Hansen, A. E., clinical use of sulphathiazole, III, 292.

Hansen, A. E., and Paine, J. R., sulphapyridine and sulphathiazole in staphylococcal bacteræmia, III, 607.

Spinks, J. W. T. See Gordon, W. E., and Mungen, R.

Spiridonova, N. S. See Rubin, B. A.
Spirtes, M. A., oxygen consumption of brain cortex in thyrotoxic guinea-pigs, III, 753.

Spitz, S. H., Loughlin, E. H., and Bennett, R. H., treatment of pneumonia in rats, III, 785.

See also Loughlin, E. H.

Spitz, W. C. See Wishnofsky, M. Spitzer, W. C., nitro-derivative of 2-bromom-4-xylidine, II, 8.

and Wheland, G. W., steric inhibition of resonance. II. Rates of reaction of nitro- and cyano-aryl halies, I, 271.

Spitzin, V. I., and Preobrashenski, N. A. reaction of niobium pentoxide with hydrogen chloride, I, 87. Chlorination of niobium and its derivatives, I, 87.

Spitzmueller, K. H. See Cheronis, N. D. Spivak, G. V. See Reichrudel, E. M. Spivakova, E. M., adsorption of alcohols

at liquid interfaces, I, 464.

Spizizen, J. See Ellis, E. L. Spoelstra, R. C. See Koser, S. A. Spoerri, P. E. Seo Joiner, R. R., Kirk,

P. M., and Sobel, A. E.

Spolyar, L. W. See Schwartz, Louis. Sponer, H. See Cleaves, A. P., and Coy, (Miss) N. H.

Sponsler, O. L., Bath, (Miss) J. D., and Ellis, J. W., water bound to gelatin as shown by molecular structure studies, I, 261.

Spoto, P., relation between vitamin-E (dl-a-tocopherol acetate) and œstrone, III, 522.

Spotoft, J. See Jacoby, P.

495.

Spradling, R. L. See Tollman, J. P. Spragg, S. D. S. See Cummins, H.

Sprague, H. B., clinical and electrocardiographic findings in ageing heart, III,

Sprague, J. M., and Kissinger, L. W., sulphonamido-derivatives of thiazoles, II, 153.

Sprague, K. D. See Barlow, O. W. Spratt, N. T., in vitro analysis of organisation of eye-forming area in early chick blastoderm, III, 953.

Sprauer, J. W., and Pearce, D. W., equilibria in systems Na<sub>2</sub>O-SiO<sub>2</sub>-H<sub>2</sub>O and

Na<sub>2</sub>O-Al<sub>2</sub>O<sub>3</sub>-H<sub>2</sub>O at 25°, I, 48. Sprawson, E., forensic aspects of teeth and jaws, III, 203.

Spray, R. S., and Stanley, A. R., photostatic camera, III, 235.

Spring, F. S., and Swain, G., formation of insoluble digitonides of cholesterol derivatives, II, 63. Dehalogenation 6-chloro-3-benzoyloxy-∆4-cholestene, II, 132. Conversion of 6-chloro-3-benzoyloxy-∆4-cholestene into △4:6cholestadienyl benzoate, II, 251.

See also Picard, C. W., and Seymour, D. E.

Spring, M., and Bernstein, I., co-existence of toxic hepatitis, acute hæmolytic anæmia, and renal damage following sulphonamide treatment, III, 126. See also Kahn, S.

Springall, H. D. See Kossiakoff, A. Springer, R. A. See Elder, A. L.

Sprinson, D. B., synthesis of N-substituted choline carbamates and trimethyl-Banilinoethylammonium chloride,

Sprinz, H. See Antopol, W., and Lehr, D. Sprong, A. A., radiation of leukæmia, III,

Sproul, E. E. See Shemin, D.

Sproull, R. C., and Gettler, A. O., application of photo-electric colorimeter; determination of bismuth in biological materials, III, 946.

Sprung, H. B., histogenesis of epulides, III, 516.

Sprung, J. See Arnold, R. T.

Sprung, M. M., reactivity of phenols towards paraformaldehyde, I, 214. Bromination of phenols by means of bromide-bromate solution, II, 94.

Spruyt, J. P., [non-]specific properties of vitamin-C oxidase prepared from Kèlor juice (Moringa oleifera, Lam.), III, 522.

Spurway, C. H., electro-foliar diagnosis, III, 713.

Squires, M. T. See Tillim, S. J.
Sreenivasaya, M. See Srinivasan, M., and Swamy, B. G. L.

Srinivasan, M., Ramaswamy, S., and Sreenivasaya, M., determination of peroxidase activity, III, 47, 1062.
Srinivasan, M. K., relation between

viscosity and density of liquids and

liquid mixtures, I, 407.
Srivastava, B. N., thermal ionisation of strontium, I, 22.

Stacheeva-Kaverzneva, E. D., determination of leucine and valine, II, 387.

Stacy, J. R. See Bowman, D. E. Stadie, W. C., fat metabolism in diabetes

mellitus, III, 186.

Zapp, J. A., jun., and Lukens, F. D. W.intermediary metabolism in diabetes mellitus. I. Synthesis of carbohydrate from fat in liver and from acetoacetate in kidney. II. Non-formation of acetic acid and ratio of ketone body increase to fatty acid decrease in livers of diabetic animals, III, 289.

Stadler, H., mental disturbances in familial cases of Paget's disease of skull, III, 995.

and Stinger, D., case of Pick's syndrome as basis for study of hypoproteinæmia, III, '561.

Stadler, J. See Zobell, C. E. Stähli, R. See Grünthal, E.

Ställberg, S., and Stenhagen, E., monolayers of compounds with branched hydrocarbon chains. III. Methyl sidechains; phytol and phytanic acid, I,

See also Stenhagen, E. Stafelt, M. G., light- and temperature-inhibition of carbon dioxide assimilation [by plants], III, 816.

Stahel, W., Sjögren's syndrome and its significance [in relation to vitamin-A deficiency], III, 283.

Stahl, G. W., determination of m.p., I, 484. Stahl, K. H. See Keuver, R. A. Stahle, D. C., pneumonia control [in Pennsylvania], III, 905.

Stahmann, M. A., Huebner, C. F., and Link, K. P., hæmorrhagic sweet clover disease. V. Identification and synthesis of hæmorrhagic agent, II, 202.

Stainsby, A. G. See MacGregor-Morris, J. T.

Stainsby, W. J., differential diagnosis of tachycardia and treatment with quini-dine, III, 843.

Stair, R. Sec Coblentz, W. W. Stalker, L. K. See Rushton, J. G.

Stamm, A. J., and Millett, M. A., internal surface of cellulosic materials, I, 109. See also Woodruff, S. A.

Stanard, R. See Rambar, A. C. Stanberry, S. R. See Spies, T. D. Stander, H. J. See Schaffer, N. K.

Stanerson, B. R.; correlation between adsorption of hydrogen and activity of catalysts containing copper oxides, 1, 303.

Stanford, S. C., and Gordy, W., spectroscopic evidence for intermolecular hydrogen bonds between phenylacetylene and various organic solvents, I, 239.

See also Gordy, W. Stanley, A. R. See Spray, R. S. Stanley, F. See Sherman, W. B. Stanley, R. H. Sec Lythgoe, B.

Stanley, W. M., chemical, medical, and philosophical aspects of viruses, III, 807.

See also Anderson, T. F., Anson, M. L., and Miller, G. L.

Stannard, J. N., effect of carbon monoxide on endogenous respiration of bakers' yeast, III, 304.

Stansfield, H. See Denstedt, O. F.

Stapp, C., Pseudomonas tumefaciens and plant galls. V. Influence of follicular hormone on gall formation and development in plants infected with P. tumefaciens, III, 61.

Stare, F. J. See Feinstein, R. N. Stark, P. See Sherman, J. M. Stark, V. J. M., blood-cholesterol content

in childhood, III, 333.

Stark, W. See Helff, O. M.

Starke, A. C., jun. See Campaigne, E. E., and Fosdick, L. S.

Starkey, E. B. See Hager, G. P. Starks, E. See Schmidt, L. H.

Starling, E. H., principles of human physiology, III, 1087.

Starling, H. G., effort syndrome, III, 653. Starnes, C. F. See Bost, R. W.

Starodubtzer, S. J., theory of renewal dialysis, I, 258.

Staroselski, P. J. See Reznitschenko, M. S.

Starr, C., magnetic properties of iron group anhydrous chlorides at low temperatures. II., I, 77. Paramagnetic dispersion measurements at 77.3° K., I, Starr, C., Bitter, F., and Kaufmann, A. R., magnetic properties of iron group anhydrous chlorides at low temperatures. I., I, 77.

and Kaufmann, A. R., magnetic properties of metallic cerium, I, 8.

See also Bitter, F.

Starr, G. H., treating deciduous trees for chlorosis, III, 399.

Starr, I. See Gammon, G. D.

Starr, P., and Metcoff, J., rapid response of guinea-pig thyroid to single injection of thyrotropic hormone, III, 757. Startzev, V. I., intermediate regions in

plastically deformed crystals of rock-salt, I, 308. Turning of crystal lattice under plastic strain, I, 455.

States,  $\hat{M}$ . N. See Giordano, A. S., and Sheard, C.

Staub,  $\dot{H}$ ., and Tatel, H., anomalous scattering of neutrons by helium. II., I. 142.

Staudacher-Dalle Aste, E. V., development of sphineter of accessory pancreatic duct in man, III, 66.

Staüble, M. Scc Ruggli, P. Stauffer, H. See Bernoulli, A. L.

Staveley, H. E. See Greep, R. O.

Staz, L., angiomatosis retinæ, III, 434.
Steacie, E. W. R., and Brown, E. A.,
reaction of hydrogen atoms with

butane, I, 16. and Cunningham, R. L., mercury-photosentitised decomposition of ethane. IV. Reaction at high temperatures, I,

18. LeRoy, D. J., and Potvin, R., cadmiumphotosensitised reactions of propane,

I, 275. and Shane, G., kinetics of decomposition reactions of lower paraffins. VII. Nitric oxide-inhibited decomposition of ethane, I, 51.

Stead, E. A., jun., treatment of circulatory collapse and shock, III, 653.

and Ebert, R. V., action of paredrinol after induction of hæmorrhage and circulatory collapse, III, 613. Postural hypotension, III, 653.

See also Ebert, R. V.

Steadman, L. T., spectrochemical determination of sodium in blood serum, III, 558.

Hodge, H. C., and Horn, H. W., potassium in bones and teeth, III, 771.

and Thompson, H. E., jun., spectrochemical determination of bismuth in biological material, III, 544.

See also Riley, R. F., and Thompson,

H. E., jun.
Stearn, A. E., and Eyring, H., absolute rates of solid reactions; diffusion, I, 251.

Irish, E. M., and Eyring, H., diffusion in liquids, I, 251. Stearn, E. L., clinical use of vitamin- $B_1$ 

and absolute alcohol intraspinally, III, 519.

Stearns, G., Jeans, P. C., Catherwood, R., and McKinley, J. B., diet in malnutrition and coliac disease, III, 454. See also Speidel, T. D.

Stechele, U., renal rickets, III, 365. Klippel-Feil syndrome, III, 410.

Stecker, J. F., Greey, P. H., and Paul, E. I., Laughlen test for syphilis, III, 696.

Steeg, K. ver. See under Ver Steeg, K. Steel, J. See Loewenstein, A.

Steele, E. J. P., visual test in vitamin-A therapy, III, 91.

See also Ditchburn, R. W.

Steele, J. M. See Schroeder, H. A. Steenbock, H. See Krieger, C. H. Stefanovski, V. F., kinetics and mechanism

of redox reactions. V. Oxidation of ferrous ion by dichromate, I, 380.

Steffens, L. C., Bair, H. L., and Sheard, C., dark adaptation and vitamin-A deficiency, IÎI, 434.

Stegeman, G. See Anderson, Adolph G., and Jack. G. W.

Steggerda, F. R., and Ponder, E., relation of nervous system to skin potentials in

intact frog, III, 254.
Steigman, J., concentration method for radioactive metals, I, 235. Mechanism of sodium coulometer, I, 396.

Steigmann, F., and Dyniewicz, J. N., ratio of free to total phenolphthalcin in urine, III, 770.

See also Fantus, B.

Stein, G. A., Sampson, W. L., Cline, J. K., and Stevens, J. R., vitamin- $B_1$ . XX. Analogues of aneurin, II, 381.

Stein, H.B. See Gillman, J.

Stein, I. F., jun. See Greengard, H. Stein, L., and Wertheimer, E., effect of adrenalectomy on intestinal absorption involving osmotic work in rats, III, 573.

Stein, M. H. Sec Bueding, E.

Stein, W. H., Moore, S., and Bergmann, M., isolation of l-serine from silk fibroin, III,

Stein-Freiberg, M. See Goldmann, F. Steinbach, H. B., chloride in giant axons of the squid, III, 341.

Steinberg, B., peritoneal exudate, III, 513. Steinberg, C. LeR., vitamin-E in treatment of fibrositis, III, 686.

Steinberg, I., Robb, G. P., and Roche, U. J., value of contrast cardiovascular visualisation in differential diagnosis of mediastinal tumour and aortic aneurysm, III,

Steinberg, J. C., and Gardner, M. B., auditory significance of the term hearing loss, III, 261.

Steinberg, R. A., use of Lemna for nutrition studies on green plants, III, 940.

Steinborn, W. See Correns, C. W. Steinbrocker, O., argyria due to silver arsphenamine, III, 916.

and Samuels, S. S., arterial circulation of lower extremities in chronic arthritis, III, 496.

Steincrohn, P.J., quality of pain in coronary thrombosis, III, 171.

Steiner, A., feeding of egg yolk powder, III, 1032.

See also Barach, A.L., and Weeks, D.M.

Steiner, H. See Glanzmann, E. Steiner, K., and Fünfer, E., resistance measurements on pure silver, molybdenum, palladium, and platinum in the temperature range 1.2—273° K., I, 105.

Steiner, P., iontophoretic application of vitamin- $B_1$  [in muscle atrophy], III, 739.

Steiner, P. E., reliability and significance of Gordon test in Hodgkin's disease, III,

Steingiser, S. Sco Waring, C. E.

Steinitz, E. See Zelson, C. Steinkamm, E., effect of simultaneous administration of follicular and corpus luteum hormone on sexual apparatus of female castrated rats, III, 269

Steinkopf, W., thiophen series. LIV. Mercuration of nitrated thiophens, II, 384.

Steinkopf, W., and Kühnel, M., thiophen series. LIII. 2:2'-Di-a-thiophanthrenequinonyl, the thiophen isologue of 2:2'-dianthraquinonyl, II, 375.

Merckoll, A., and Strauch, H., thiophen series. LV. 2-Methyl-3-ethyl- and 3methyl-2-ethyl-thiophen and deriv-

atives, II, 384. Steinman, H. G. See Doak, G. O. Steinman, R. See Audrieth, L. F.

Steinmann, B., granules in cells of multiple myeloma, III, 72. [Skin circulation in health and in heart disease], III,

Steinmetz, C. R. See Heckel, N. J.

Stekol, J. A., mercapturic acid synthesis in animals. XII. Synthesis of N-acetyl-S-p-bromobenzyl-l-cysteine in the rat from p-bromobenzyl bromide, S-p-bromobenzyl-1-cysteine, and S-p-bromobenzyl-glutathione, II, 253; III, 524. Conversion of dibenzyl disulphide into hippuric acid in rat, III, 290.

Stemmer, W., examination of semen and

female sterility, III, 101.

Stempel, A., and Elderfield, R. C., identity of a- and  $\beta$ -earleine with betaine and choline, respectively, II, 88.

Stempel, G. H., jun., preparation and properties of ethylene, II, Sl.
Stender, V. V. See Grubina, L. M.

Stenger, K., blood changes in severe infectious and toxic conditions and their relation to damage of adrenal gland, III, 494.

Stenhagen, E., and Ställberg, S., monolayers of compounds with branched hydrocarbon chains. II. Effect of substitution on packing of long hydrocarbon chains. IV. Phthioic acid, I, 39, 333.

See also Ställberg, S.

Stepanenko, B. N. See Stepanov, A. V. Stepanenko, N. N. See Volarovitsch,

Stepanov, A., Kuzin, A., Makaeva, Z., and Kosjakov, P., specific polysaccharides of blood, III, 838.

Stepanov, A. V., and Stepanenko, B. N., active form of monosaccharides. VI. Reactivity of fructose 1-phosphate. VII. Reactivity of fructose 1:6-diphosphate, II, 242, 313.

 Stepanov, B. I. See Kozlov, V. V.
 Stepanov, B. L., interaction of components of a <sup>3</sup>Σ with a <sup>1</sup>II level, I, 147. Shape of perturbation curves for intersection of levels 3Σ and 1II of diatomic molecule, I, 147.

Stephens, A. O., treatment of diabetes in childhood, III, 756.

Stephens, D. J., and Allen, W. M., effect of refeeding and of pituitary extract on ovaries of undernourished guinea-pigs, III, 579.

and Belasco, I. J., effect of undernutrition on thyroid tissue respiration of guinea pig, III, 261.

Stephens, J. G., mature and immature red-cell surfaces, III, 161. Vaso-dilator and vaso-constrictor substances and normal and denervated spleens, III, 172.

Stephens, W. E. See Haxby, R. O., and Langer, A.

Stephenson, C. C., thermal transitions in ammonium and silver trihydrogen paraperiodates, I, 249. Stephenson, C. S. Sec Peller, S.

Stephenson, (Miss) E. F. M. See Hatt, H.H.

Stephenson, S. T., comparison of X-ray absorption fine-structure for two elements in the same crystal, I, 138. Possible Kronig fine-structure in X-ray emission spectra, I, 146. Stern, E. C. See Walters, J. D.

Stern, K., reticulo-endothelial function of cancer patients, III, 453.

Stern, K. G., and De Bois, D., aids for optical analysis of electrophoretic

diagrams, III, 793. and Melnick, J. L. [with DuBois, D.], photochemical spectrum of Pasteur enzyme in retina, III, 622.

Sec also Sevag, M.G.Stern, L., and Wertheimer, E., cardiac metabolism and rigor in thyroidcctomised rats, III, 78.

Stern, M. S., and Brahdy, M. B., tellurite test in diagnosis of diphtheria, III, 802.

Sternbach, L. See Pauli, IV., and Ruzicka, L. Sternberg, T. H. See Callaway, J. L. Sterne, E. H., jun., Schiro, H., and Molle,

W., pernicious anemia complicated by myelogenous leukæmia, III, 961.

Sternfeld, L., and Saunders, F., fermentation of mucic acid by intestinal bacteria,

Stetten, De IV., jun., biological relationships of choline, ethanolamine, and related compounds, III, 524, 782. Sec also Rosenblüth, M. B.

Steuer, E. I. See Lasz, J. Steuer, H., potentiometric analysis of metals of ammonium sulphide group, I,

Steven, D., and Wald, G., vitamin-A deficiency: field study in Newfoundland and Labrador, III, 1034. Stevens, C. M. See Carter, H. E.

Stevens, F. A., bactericidal action of irradiated pine oil on hæmolytic streptococcus, III, 931.

Stevens, H. See Coulson, E. J., and Spies, J. R.

Stevens, J. R., and Beutel, R. H., physostigmine substitutes, II, 96.

See also Stein, G. A. Stevens, N. E., and Wilson, W. E., biotinlike substance produced by Diplodia zea, III, 798.

Stevens, P. G., and Allenby, O. C. W., reduction of a-bromo-ketones by aluminium isopropoxide. II., II, 227. and Schiessler, R. W., nitration of aliphatic hydrocarbons, II, 1.

Stevens, R. E. See Gregory, K. K. Stevens, R. J. See Moss, H. K.

Stevens, R. S., treatment of coronary artery disease, III, 335.

Stevens, S. S., and Volkmann, J., quantum of sensory discrimination, III, 434.

Stevens, T.O. See Ehrenstein, M. Stevenson, A. F., magnetic resonance method of determining nuclear moments, I, 70.

Stevenson, D. P., entropy of gaseous diatomic hydrides and halides, I, 248. and Yost, D. M., thermodynamic properties of phosphorus, phosphine, and some phosphorus halides, I, 301.

See also Schomaker, V. Stevenson, G. See Brewster, R. Q. Stevenson, L. D. See Wade, L. J.

Stever, H. G., directional Geiger counter, I,

See also Neher, H. V.

Stewart, C. B. See Thistle, M. W. Stewart, C. D., dermatitis due to mosquito wood, III, 222.

Stewart, C. P., stored blood. IV., III, 329. Nutritional factors in dark adaptation, III, 668.

Learmouth, J. R., and Pollock, G. A., ascorbic acid in experimental acute hæmorrhage, III, 965.

and Thompson, James C., conversion of fructose and fatty acid into glucose, III, 458.

See also Meiklejohn, G. T., and Ramsay, W. N. M.

Stewart, D., jun., Marie Byrd land rocks,

Stewart, D. E. See Robinson, C. S. Stewart, D. W., and Cohen, K., further concentration of 34S., I, 125.

Stewart, F. H., sulphatic cancrinite and analcime from Loch Borolan, Assynt, I,

Stewart, G. N. See Rogoff, J. M. Stewart, H. C., [blood-] fat and agglutinin titre, III, 727.

See also Frazer, A. C.

Stewart, H. J., mechanism of diuresis: alterations in specific gravity of blood plasma with onset of diuresis in heart failure, III, 366.

and Bailey, R. L., jun., cardiac output and other measurements of circulation in coarctation of the aorta, III, 973.

and Smith, J. J., changes in electrocardiogram and cardiac rhythm during therapeutic use of potassium salts, III,

Stewart, H. L., hyperplastic and neoplastic lesions of stomach in mice, III, 591.

and Jones, B. E., pathologic anatomy of chronic ulcerative excitis; spontaneous disease of rat, III, 363. See also Lorenz, E., and Shear, M. J.

Stewart, H. W., and Wheeler, D. H., m.p. of binary mixtures of oleic, linoleic, and linolenic acids, I, 300.

Stewart, J. See Taylor, A. W. Stewart, J. D., and Rourke, G. M., measurement of extracellular fluid volume with thiocyanate and body fluid analyses in 33 normal individuals, III, 729.

Stewart, J. K. See Pohle, F. J.
Stewart, J. L. See Harrington, E. L.
Stewart, J. S., pressure in petroleum reservoirs, I, 136.
Stewart, J. W. See Muether, R. O.

Stewart, O. W., Russel, C. K., and Cone, W. V., blast injury to central nervous system, III, 343.

Stewart, S. E. See Seal, S. C.

Stewart, T. D., and Pontana, B. J., effect of solvation on dissociation of acctone cyanohydrin, I, 114. -

See also Fontana, B.J., and Reiber, H.G.Stewart, W. H., gastrectomy, partial, subtotal, and total; radiographic phase,

Breimer, C. W., and Maier, H. C. contrast cinerentgenography of circulatory organs, III, 843.

Stewart, W. K. See Carmiohael, E. A. Stewart, W. L., and Ponsford, A. P., pining in sheep not curable by cobalt, III, 115, 130.

Stewart, W. S., plant growth inhibitor and plant growth inhibition, III, 403. Effect of naphthylacetic acid on mobile auxin in bean seedlings, III, 818. See also Mitchell, John W.

Steyermark, A. See Lee, J. Stickland, L. H., inhibition of glucolysis by glyceraldehyde, III, 1041. See also Orr, J. W.

Stickney, J. C., effect of adrenaline on potassium balance of hind limbs of frog, III, 850.

Stickney, P. B. See Flory, P. J. Stiepel, H., origin of renal hæmorrhage in

diphtheria, III, 365.
Stier, T. J. B. See Carroll, W. R., and
Robinson, F. W.

Stiff, H. A. See Fashena, G. J., and Grow, M. H.

Stigers, W. E. See Nuzie, S. B.

Stiles, M. H., changes in the sedimentation rate and non-filament-filament ratio following clinical improvement in patients with low-grade chronic illness, III, 728. Hypersensitivity to small doses of sulphathiazole, III, 908. Non-filament-filament ratio changes following administration of autogenous vaccines to persons with lowgrade chronic illness, III, 966.

Dirickx, E. F., and Stiles, M. T., non-filament-filament count [on neutrophils] and its relation to Schilling

count, III, 966. Stiles, M. T. See Stiles, M. H.

Stiles, W., and Skelding, A. D., salt relations of plant tissues. II. Absorption of manganese salts by storage tissue, III,

Still, J. L., triose phosphate dehydrogenase of Bacterium coli, III, 135. Pyruvic dehydrogenase of B. coli, III, 469. Glyoxalase of B. coli, III, 470.

Stiller, E. T., and Wiley, P. F., resolution of racemic pantothenic acid by means of quinine methohydroxide, II, 244.

Stillerman, M. See Fischer, A. E. Stillings, R. A., and Browning, B. L., photocolorimetric determination of fur-furaldehyde, II, 80.

Stilwell, E. F., obtaining pure cultures of embryonic heart muscle, III, 242.

Stimpert, F. D., virus diseases: laboratory phases, III, 934.

Sco also Kessel, J. F.

Stimson, (Miss) M. M., and Loofbourow, J. R., ultra-violet absorption spectra of nitrogenous heterocyclic compounds. III. Effect of  $p_H$  and irradiation on spectrum of 2-chloro-6-aminopyrimidine, I, 363.

and Reuter, (Miss) M. A., fluorescence of purines and pyrimidines, I, 193. See also Cook, E. S.

Stinger, D. See Stadler, H.

Stirling, A. C., hæmatocrit tube cleaner, III, 169. Hæmatocrit tube filling pipette, III, 726.

Stirnimann, F., infantile diet with lactic acid-milk mixtures, III, 370.

Stites, J. R. See Bowen, J. A.

Stitt, F., gaseous heat capacity and restricted internal rotation of diborane, I, 78. See also Coryell, C. D.

Stock, C. J. H. See Cookson, H. A. Stock, P. G., hygiene in air-raid shelters,

Stockbarger, D. C. See King, R. B.Stockebrand, L. See Schwartzer, K.

Stockholm, M., Althausen, T. L., and Borson, H. J., mechanism of intestinal absorption of thiamin, III, 680.

Stockley, G. M., geology of Basutoland, I,

Stockmayer, W. H., second virial coefficients of polar gases, I, 293. Sec also Beattie, J. A., and Burrows, M. G. T.

Stoddard, M. P. See Fox, S. W.

Stodola, F. H., search for a stable substituted vinyl alcohol, II, 309.

Stoeber, E., atonic-sclerotic muscular dystrophy (type Ullrich), III, 341. Nirvanol treatment of chorea, III, 616. Stöger, R., effect of vitamin-C on glycosuria,

III, 604.

Störring, E., chronic poisoning with benzine containing lead tetraethyl and its combustion products, III, 1055.

Stoesser, A. V., feeding of premature babies, III, 773. and Cook, M. M., possible relation be-

tween electrolyte balance and bronchial asthma, III, 339. Electrolyte and water exchange in bronchial asthma and influence of pitressin, III, 425.

See also Jensen, R. A.

Stohlman, E. F. See Smith, M. I. Stokes, A. B., psychological aspects of deafness, III, 506.

See also Hardwick, S. W.

Stokes, E. J. See Felix, A. Stokes, F. J. See Flosdorf, E. W.

Stokes, J. jun. See Rhoads, T. F.

Stokes, J. H., personality factor in psychoneurogenous reactions of skin, III,

Beerman, H., and Ingraham, N. R., jun., psychoneurogenous component cutaneous reaction mechanisms, III,

Stokes, M., early localisation of thyroid anlage in Hyla regilla, III, 239.

Stokes, R. H., and Robinson, thermodynamic study of bivalent metal halides in aqueous solution. VIII. Activity coefficient of ferrous chloride, I, 377.

See also Robinson, R. A.

Stokes, W. R., artificial insemination, III,

Stokstad, E. L. R., isolation of a nucleotide essential for growth of Lactobacillus casei, III, 626.

Almquist, H. J., Mecchi, E., Manning, P. D. V., and Rogers, R. E., carbohydrate component of rice factor, III,

Stoll, B., and Nishewitz, S., electrocardiogram in periodic paralysis, III, 972. Stone, C. P., Ferguson, L. W., and Wright,

C., consistency in lengths of postejaculatory quiescent periods in adult male rats, III, 576. Stone, II. W. See Hume, D. N.

Stone, L. S., and Chace, R. R., experimental studies on regenerating lens and eye in adult Triturus viridescens, III, 487.

and Dinnean, F. L., origin of lens by induction in Amblystoma punctatum,

and Ellison, F. S., exchange of eyes between adult hosts of Amblystoma punctatum and Triturus viridescens, III, 667.

and Sapir, P., regeneration of lens in eyes of anurans, urodeles, and fishes, III. 953.

Stone, M. H., spectra. II., I, 96.Stone, R. S., Lawrence, J. H., and Aebersold, P. C., fast neutrons in treatment of malignant disease, III, 44.

Stone, R. V., anthrax in shaving brushes, III, 537.

Stone, S., vitamin-E in treatment of muscle disorders of infancy and childhood, III, 565.

Stone, W. E. See McQuarrie, I., and Marshall, C.

Stoneburg, C. A. See Hodge, H. C. Stoner, G. G., and Dougherty, G., rate characteristics of oxidation of disulphideacids by hydrogen peroxide, I, 339. of Bunte salts in synthesis. II. Preparation of derivatives of thiol-aliphatic acids, II, 184. Preparation of S-benzylthiolacetic acid, II, 253.

Stopher, E. G. See Hopkins, R. H.

Storeck, D., rudimentary teeth primordia and other peculiarities of buccal cavity of Manis javonica, III, 237.

Stormont, R. T., and Hook, W. E., effect of convulsants at low body temperatures, III, 1053.

Storonkin, A., equilibrium conditions in two-phase multi-component systems. I., I, 299. Story, R. V.

See Kehoe, R. A.

Stotler, W. A. See Papez, T. W.

Stotz, E., clinical method for determination of nicotinic acid in blood and urine, III, 519. Clinical method for determination of ascorbic acid in plasma and urine, III, 895.

Stoughton, R. W., and Baxter, J. H., jun., substituted oxazolediones, III, 1052.

Stout, H. A. See Gall, E. A.

Stout, J. W., thermal anomaly in anhydrous

copper sulphate, I, 248.

and Fisher, L. H., entropy of formic acid; heat capacity from 15° to 300° K.; heats of fusion and vaporisation, I,

and Giauque, W. F., magnetism and third law of thermodynamics; magnetic susceptibility, adiabatic change of temperature on magnetisation, and heat capacity of NiSO<sub>4</sub>,7H<sub>2</sub>O, I, 248. See also Giauque, W. F.

Stout, O. M., and Kositchek, R. J., parenteral use of hypertonic glucose for relief of pruritus and serum sickness, III, 223.

Stout, P. R. See Helmholz, A. C.

Stovall, W. D. See Eyre, S. Stovanoff, V. A. See Waelsch, H.

Stradelli, A., phase diagrams for moist gases, I, 84.

Strahan, D. E. See Otto, G. F. Straker, E. See Delafield, M. E.

Strakosch, E. A., rôle of bases in ointments used for protection against sunlight, III, 1056

and Nelson, L. M., postrhagadic scars, III, 723.

See also Winer, L. H. Straley, J. W., Tindal, C. H., and Nielsen, H. H., frequencies  $\nu_2$  and  $\nu_4$  in infra-red spectra of SiH, and GcH, I, 71. See also Tindal, C. H.

Stranathan, J. D. See Dodds, W. J., and Sheppard, G. E.

Stranski, I. N., calculation of electrostatic potentials in fluorite lattice, I, 328. See also Bradistilov, G.

Strashesko, D. N., adsorption of electrolytes from non-aqueous solutions. I.,

Stratschitzki, K. I., effect of ascorbic acid on invertase, III, 796. See also Vilenski, V.A.

Stratton, E. K., [assay of] poison oak and poison ivy, III, 479.

Straub, G. J. See Conner, R. T.

Straub, W., and Amann, A., action of

nicotine, III, 463.

Strauch, H. See Steinkopf, W.

Straus, H. A., abundance ratio 61Ni: 64Ni, I. 93. Mass spectrograph and isotopic constitution of nickel, I, 233.

Straus, R. See Kline, B. S.
Straus, W. See Meyer, K. H.
Straus, W. L., posture of great ape hand in locomotion and its phylogenetic implications, III, 5.

Strauss, A. A. See Appel, M. Strauss, E., Lowell, F. C., and Finland, M., inhibition of sulphonamide action by p-aminobenzoic acid, III, 903.

Lowell, F. C., Taylor, F. H. L., and Finland, M., absorption, excretion, and distribution of sulphanilamide, sulphapyridine, sulphathiazole, and sulphamethylthiazole, III, 903.

See also Finland, M., and Peterson, O. L. Strauss, M. B., Daland, G. A., and Fox, II. J., familial microcytic anæmia, III, 324.

and Fox, H. J., anæmia and water retention, 111, 70.

and Spain, W. C., preparation of active allergenic extracts, III, 814.

Seo also Spain, W. C.

Strauss, S., delayed electrocardiographic changes in coronary occlusion, 111, 79.

Strauss, W. L., phylogeny of human forearm extensors, III, 637.

Strean, L. P., and Grant, G. A., preparation and properties of Hæmophilus pertussis endotoxin, III, 309.

Street, H. R., Cowgill, G. R., and Zimmerman, H. M., vitamin-B<sub>6</sub> deficiency in dogs, III, 777.

Streib, J. F., Fowler, W. A., and Lauritsen, C. C., transmutation of fluorine by protons, I, 188.

Streigh, G., and Svetosarov, E., [action of light on] sexual cycle [in frogs], III, 874.

Streit, hormonal treatment of uterine homorrhage, III, 196.

Strelkov, P. G., radiometric effect in liquid helium, I, 459.

Streltzova, M. M. See Popov, M. M. Strepkov, S. M., and Succhorukova, N. K.,

micro-determination of lactose as lactobionic acid, II, 308.

Streybeyko, P., influence of phosphorus on nitrogen metabolism in oats, III, 400.

Strickler, C. W., jun., McGinty, A. P., and Peschau, J. B., jun., intravenous use of sodium sulphapyridine in treatment of lobar pneumonia, III, 904.

Stringer, J. T. Sec Komarewsky, V. I. Stringfellow, W. A. See Neale, S. M.

Strishevski, I. I., and Tschechovitsch, M. D., detection of diacetylene in presence of acetylene, II, 237.

Ström, J., treatment of spasmophilia with single massive dose of vitamin- $D_2$ , III, 30.

and Troell, L., case of malformation of larynx with fatal course, III, 154.

Stroganov, N. S., physiological adaptation and gaseous exchange in fish, III, 377.

Strogonov, B. P., tanning substances in a cotton affected with verticillose, III, 945.

and Ostapenko, L., leaf-albumins as index of salt-resistance of cotton plants, III, 480.

Strohm, J. G., Nielsen, IV. E., and Potampa, P. B., treatment of male gonorrhea with sulphathiazole, III, 905.

Stromberg, A. See Karpatschov, S. Strong, F. M., Feeney, R. E., and Earle, (Miss) A., microbiological assay for pantothenic acid, 111, 1087.

Strong, F. M., Feeney, R. E., Moore, B., and Parsons, II. T., riboflavin content of blood and urine, III, 285.

Strong, J., measuring mean height of ozone in the atmosphere, I, 180. Atmospheric absorption and emission in the infra-red, I, 362.

and Dibble, B., thin evaporated silver

films on glass, I, 368.

Strong, L. C. See Blaisdell, J. S., Burr, H. S., and Kirschbaum, A.

Strong, R. A. See Russ, J. D. Stroud, S. W., metabolism of parent compounds of simpler synthetic estrogenic phenols, III, 194.

Stroud, W. D., and Twaddle, P. H., effect of coramine in cardiac states, III, 219.

Strublé, E. B., and Sharp, P. F., effect of heat and  $p_{\rm H}$  on inactivation of rennin, III, 470. Struck, F., putrefaction and spectro-

graphic determination of alkaloids after

death, III, 383. Strumia, M. M., and McGraw, J. J., preparation and preservation of human plasma; drawing off, pooling, and distribution of plasma, III, 643. Frozen and dried plasma, III, 963.

McGraw, J. J., and Reichel, J., preparation and preservation of human plasma, III, 725, 963. Freezing human plasma and preservation in

frozen state, III, 829. Wagner, J. A., and Monaghan, J. F., intravenous use of serum and plasma fresh and preserved, III, 75.

Strumza, M. V. See Binet, L.

Strunz, H., minerals of the descloizite group; konichalcite, staszizite, austinite, duftite, aräoxene, volborthite, pyrobelonite, I, 230.

and Schroeter, J., classification of natural phosphates, arsenates, and vanadates,

I, 352.

Struthers, P. H. See Truscott, H. L. Strutinski, N. I. See Akulov, N. S.

Struve, O., diffuse matter in interstellar space, I, 311.

and Sherman, F., effect of continuous Balmer absorption on equivalent widths of stellar absorption lines, I,

See also Swings, P.

Struve, W. S. See Bachmann, W. E.
Stryker, W. A., absorption of liquid petrolatum ("mineral oil") from intestine, III, 880.

See also Potter, E. L.

Stuart, A. H. See Lutz, R. E.

Stuart, L. S., growth of halophilic bacteria in concentrations of sodium chloride above 3 x molar; effect of protein concentration and cysteine on halophilic bacteria, III, 800.

Stuart, N. W., nitrogen and carbohydrate metabolism of kidney bean cuttings as affected by treatment with indolylacetic acid, III, 149.

See also Mitchell, John W.
Stuckenhoff, H. E. See Zuckerman, S. S. Stuckey, J. M., and Saylor, J. H., vapour pressures of organic compounds. 1., I, 200.

Stuckey, R. E., ultra-violet absorption spectra of barbituric acid and its 1-methyl and 1:3-dimethyl derivatives, III, 148.

Stuckwisch, C. G. See Gilman, H., and Wood, H. G.

Studer, S. See Goldberg, M. W. Stuhr, E. T. See Fuhrmann, F. A. Stulik, C. K. See Klein, R. I.

Stull, A., Cooke, R. A., Sherman, W. B., Hebald, S., and Hampton, S. F., fresh and modified pollen extracts, III,

Sherman, W. B., and Hampton, S. F., antigenic fractions in ragweed pollen, III, 634.

Stumpf, P. K. See Green, D. E.

Sturgess, V. C. See Beale, G. H. Sturgis, C. C., etiology of anemias, III, 325.

See also Goldhamer, S. M.

Sturm, E. See Murphy, J. B.

Sturtevant, A. H., and Novitski, E., sterility in crosses of geographical races of Drosophila micromelanica, III, 956.

Sturtevant, J. M., calorimetric investigations of organic reactions. II. A new calorimeter; mutarotation of a- and  $\beta$ -d-glucose. III. Heats of ionisation of glycine at 25°, I, 116, 169. Heats of dilution of amino-acids, I, 116. Heat of dilution of aqueous hydrochloric acid at 25°, I, 267.

Sturtevant, M. See Ehrenfeld, I.

Sturzenegger, H., renal dwarfism in infancy, III, 364.

Stutzman, L. F. See McMillen, J. II. Subbarao, T. V. See Solanki, D. N.

Subbaraya, T. S., Seshadri, K., and Rao, N. A. N., interaction of atomic energy levels, I, 285.

Subrahmanian, R. V., spectral character of reflexion by a regularly stratified medium, I, 399.

Subrahmanyan, I'. See Green, D. E.,

and Rao, C. N. B.
Subramaniam, M. K., nervous system of proglottid of Tentacularia macropora, III, 741.

Succhorukova, N. K. See Strepkov, S. M. Suchareva-Budnitzkaja, E. V. See Kuzin,

Suchorukov, K., and Filippov, V., cell division [and vitamins] in cotton plants, III, 482.

Suchov, K. S., virus proteins in cereals, III, 478.

Suciu-Stan, M. See Nitzescu, I. I. Suden, C. T., opacities of lens induced by adrenaline in mouse, III, 503.

and Wyman, L. C., adrenaline-induced opacities of lens in rat, III, 11.

Sudman, A. T. See Dunn, F. L.

Sue, P. See Leblond, C. P.

Sueda, H., and Kaneko, M., determination of potassium with hexanitrodiphenyl-

amine (dipicrylamine), I, 387.
Süllmann, H., co-enzyme activity of inosic acid in breakdown of glucose and glycogen in retina extracts, III, 388. Influence of lecithin and vitamin-E on enzymic oxidation of carotene, III, 702. Enzymic oxidation of carotene, III,

Suen, T.J., laboratory fractionating column head, I, 486.

Suffolk, S. F. See Cowan, S. L.

Suganuma, T., protein fraction of bodies of hamolytic streptococci, III, 475. Toxic substances in hamolytic streptococci, III, 475.

Sugar, H. S., mechanical factors in ætiology of acute glaucoma, III, 863.

See also Gradle, H. S. Sugarman, H., Katz, L. N., Saunders, A., and Fochim, K., genesis of electrical currents established by injury to heart, III, 247.

See also Buchbinder, W. C.

Sugasawa, S., and Sakurai, Kiiti, Friedel-Crafts reactions with halides containing sulphur. I. Synthesis of 4:4'-diaminodiphenyl sulphone, II, 288.

and Sugimoto, N., synthesis of C-methyl derivatives of some medicaments. I. Synthesis of 4-methyl- and 3:4-dimethyl-isoquinolines. II. Synthesis of dimethyleocaine, p-(3:4-dimethyleinnamoyloxy)phenylcarbamide, and 4:5dimethyl-o-phthaltetraethyldiamide, II, 305.

Sugimoto, A. See Amaki, T.

Sugimoto, II., intermediate carbohydrate and gaseous metabolism of muscle during functional disturbance of the liver, III,

Sugimoto, N. See Sugasawa, S. Sugiura, K., and Rhoads, C. P., experimental liver cancer in rats and its inhibition by rice-bran extract, yeast, and yeast extract, III, 278.

Suito, E., thermal analysis of catalytic action of colloids. II. Effect of temperature and heat-treatment of platinum sol on catalytic decomposition of hydrogen peroxide by colloidal platinum, I, 476.

Sullivan, H. M., quantum efficiency of Geiger-Müller counters for X-ray intensity measurements, I, 178.

Sullivan, H. R., and Goldsworthy, N. E., comparative study of anaërobic strains of Actinomyces from clinically normal mouths and from actinomycotic lesions, III, 49.

Sullivan, M., and Nicholls, J., nutritional dermatoses in the rat. I. Vitamin- $B_6$ deficiency. II. Skin changes in rats deficient in entire vitamin-B complex other than thiamin, III, 210. Nutritional dermatoses in rat gangrene and spontaneous amputation of digits produced by combined deficiency of vitamin- $B_6$  and filtrate components, III, 777. Riboflavin deficiency (dermatoses) in rat, III, 1035.

Sullivan, M. X., Hess, W. C., and Howe, P. E., comparison of wool and skins of full-fed and maintenance-fed lambs, III, 774.

See also Hess, W. C., Irreverre, F., and Milone, H.S.Sully, A.H. See Owen, E.A.

Sulzberger, M. B., and Hecht, R., acquired specific hypersensitivity to simple chemicals, III, 633.

See also Schwartz, Louis.

Sumarokov, V. P., and Davidova, M. I., density and refractive index in system methyl alcohol-acetonc-methyl acetate, I, 46Ĭ.

Sumigawa, R. See Hayashi, S. Summ, N. I. See Krestinski, V. N.

Summerfeldt, P. See Erb, I. H. Summerson, W. H. See Barker, S. B. Sumner, J. B., Dounce, A. L., and Frampton, V. L., catalase. Ill, III, 136.

Sumner, R., effects of vitamin- $\hat{B}$  on blood count and hæmoglobin content of normal albino rats, III, 116.

Sumpter, W. C., 7-bromo-5-iodoisatin and

3-bromo-5-iodo-2-aminobenzoic acid, II,

Sun, C. E., and Li, S. T., relation between acidic and basic properties of hydroxides, atomic and quantum numbers, and valency, I, 194.

Tseng, C. L., and Li, S. T., relation between atomic radii and b.p., I, 199. See also Li, S. T., and Tseng, C. L.

Sunagawa, G. See Kitamura, R. Sundberg, O. E. See Royer, G. L.

Sundelein, G., ovarian changes in hæmor-

rhagic anæmia, III, 358.

Sunder-Plassman, P., nerve supply of human lung, III, 88. Sympathetic nerve supply of thyroid and thyro-toxicosis, III, 93. Neuro-hormonal cells of vagus system in thyroid gland, III, 93. Vegetative nervous system and thyroid gland, III, 93. Ætiology of Raynaud's disease, III, 653.

and Eickhoff, W., effects of "antithyrotropic hormone" as immunobio-

logical process, III, 184.

Sunderland, S., vascular patterns in central nervous system of monotremes and Australian marsupials, III, 949.

Sunderlin, R. See Inouye, K.
Sunderman, F. W., absence of sweat glands, III, 1057.

and Pepper, D. S., sulphathiazole in blood and urine, III, 292.

Sung, C. See Chu, F.

Suntzeff, V., use of plastic as a substitute for cover glasses, III, 820.

Suomalainen, H., mechanism of biological fixation of [atmospheric] nitrogen, III,

Supplee, G. C., Bender, R. C., and Kahlenberg, O. J., effect of complementing factors on quantitative response and specificity of vitamin- $B_6$ , III, 26.

See also Jensen, O. G. Suppli, E., treatment of chorea with luminal and myosalvarsan, III, 616.

Surdin, M., "shot effect" in temperaturelimited diodes, I, 393.

Sure, B., and Dichek, M., sparing action of thiamin on body tissue catabolism, III, 1034.

and Dichek, M. [with Citron, M. M.], riboflavin in economy of food utilisation, III, 1035.

and Wilder, V. M., simplified photoelectric procedures for micro-determination of non-protein-nitrogen, ureanitrogen, creatine, and creatinine of blood, III, 420.

Sureau, M. See Tzanck, A.
Surmatis, J. D. See Marker, R. E.,
and Whitmore, F. C.
Suryaprakasam, V., offect of temperature

on ultrasonic velocity in liquids, I, 77. Suschkevitsch, T. See Usanovitsch, M.

Susuki, S. See Iwata, M. Susz, B. P., Höfer, H., and Briner, E., chemical action of electric discharges. XXII. Peculiarities of arc spectra, at high and low frequencies, arising in gaseous mixtures containing hydro-carbons, I, 342.

Suter, C. M., and Malkemus, J. D., sulphonation of isobutylene. I.  $\beta$ -Methylpropene-ay-disulphonic acid and related compounds, II, 183.

and Milne, H. B., mechanism of ketone formation from trans-indene glycol and halohydrins, II, 67.

and Weston, A. W., fluorinated amines of the pressor type, II, 129. Suter, H. See Schwarzenbach, G.

Sutherland, E. IV., Colowiek, S. P., and Cori, C. F., enzymic conversion of glucose 6-phosphate into glycogen, III, 796. Sutherland, G. B. B. M., and Cheng-Kai

Wu, vibration spectra of condensed gases at temperature of liquid nitrogen.

I. Experimental methods; Raman spectra, I, 97.

Sutherland, G. B. B. M. See also Conn, G. K. T., and Lee, E.

Sutherland, L. H. See Whitmore, F. C. Sutro, C. J., fluorescence microscopy, III,

See also Jaffe, H. L.
Sutton, D. C., interrelation between vitamin-B complex and anterior lobe of pituitary gland, III, 757. Sutton, L. E. See Davidson, N. R., Lister,

M. W., and Skinner, H. A. Sutton, T. S., rôle of nutrition in repro-

duction, III, 870.

Sec also Setterfield, H. E.
Suvarovskaja, N. A. Sec Plaksin, I. N.
Suzdaleva, V. S. Sec Lutschinski, G. P. Suzdaltzeva, M. N. Seo Popov, M. M.

Suzuki, H., partition of sulphur dioxide between water and immiscible solvent,

Suzuki, K., pharmacological action of shock toxin, III, 39.

Suzuki, Kakuo, analytical chemistry of nitrogen compounds. I. Detection of nitrous acid in alkaline solution. Quantitative analysis of nitrous acid in alkaline solution, I, 218, 279.

Suzuki, Kohei. See Kondo, H.

Suzuki, S., ætiology of endemic goitre, III, 436. Development of chicken embryo, III, 487. Vitamin-C in chick embryo, III, 487. III, 720.

Suzuki, T., adrenaline-sensitising action of cocaine, III, 38.

Suzuki, Takao. See Somekawa, E. Svartz, N., treatment of chronic colitis,

III, 363. Svensson, H., fractionation of serum with

ammonium sulphate and dialysis, studied by electrophoresis, III, 701.

See also Blix, G. Sverdlin, A. See Godnev, I. Sverdlin, M. See Rogovin, Z.

Sverdlina, C. See Runov, V. I. Sveschnikov, N. N. See Levkoev, I. I. Svetosarov, E. See Streich, G.

Sviderskaja, T. A. See Musheev, V. A.

Swaby, R.J. Sec Jensen, H.L.Swain, A.P. Sec Spies, T.D.Swain, G. See Spring, F.S.

Swain, R. H. A., sulphonamides and Streptococcus viridans, III, 33. See also Hadfield, G.

Swalm, W. A. See Morrison, L. M. Swalm, W. M. Seo Hyman, A. S.

Swamy, B. G. L., and Sreenivasaya, M., vitamin requirements of rice moth Corcyra cephalonica, Staint (Lep.), III, 892.

Swamy, K. B. See Sharma, N. L. Swamy, S. R. See under Ramaswamy,

Swan, C., experimental poliomyelitis. I. Effect of faradic stimulation on localisation of paralysis induced by intranasal inoculation of poliomyelitis virus, III, 1076. Transmission of virus of infectious myxomatosis of rabbits to central nervous system, III, 1076.

Swan, H., effect of cholecystogastrostomy on cinchophen-produced ulcer in dogs, III, 103.

Swan,  $J_{\cdot,i}$ , injuries to peripheral nerves, III,

Swan, K. C., and Hart, W. M., comparative study of effects of mecholyl, doryl, eserine, pilocarpine, atropine, and adrenaline in blood-aqueous barrier, III, 258.

Swan, K. C., and Salit, P. W., lens opacities associated with experimental calcium

deficiency, III, 864. Swank, R. L., Wallerian degeneration in

sciatic nerve of rat, III, 87. Swann, W. F. G., single component in primary cosmic radiation, I, 315. Swanson, E. E., and Fry, W. E., pharmaco-

logical relationship of isomeric barbituric acid derivatives, III, 295.

Swanson, L. E., Harwood, P. D., and Connelly, J. W., phenothiazine as anthelmintic for swine, III, 38.

Porter, D. A., and Connelly, J. W., efficacy of nonconditioned phenothiazine in removing worms from alimentary canal of cattle, III, 39. Swanson, L. W., and Greene, J. A., rôle

of diet in ætiology and treatment of spontaneous hypoglycæmia, III, 419.
See also Greene, J. A.
Swanson, P. See Witebsky, E.
Swartout, J. A. See Dole, M.

Swartz, J. H., and Conant, N. F., eruption caused by Trichophyton rubrum [treated with ethyl iodide], III, 126.

and Jankelson, I. R., incidence of fungi in stools of non-specific ulcerative colitis, III, 1018.

Swearingen, L. E. See Hauser, E. A.

Sweat, M. L., small dissecting and operating table for animals, III, 820.

Sweeney, H. M., do carotid sinuses exert pressor activity when systemic blood pressure is low? III, 171.

Sweeney, W.J. See McAlister, E. D. Sweet, J. E., and Hoskins, W. H., androgen

in woodchuck hibernating gland, III,

Sweet, L. K., gonococcal conjunctivitis [treatment with sulphonamides], III, 1046.

See also Paekchanian, A. Sweet, M. See Windle, W. F. Sweet, S. J. See Fox, M. S.

Swenson, S. A., jun. See Isacson, S. E. Swift, R. W. See Forbes, E. B. Swinehart, D. F. See Fox, R. K.

Swingle, K. F. See Axelrod, A. E. Swingle, W. W., Remington, J. W., Hays, H. W., and Collings, W. D., effectiveness of priming doses of deoxycorticosterone acetate in protecting adrenalectomised dog against water intoxication, III, 572.

Sec also Remington, J. W.

Swings, P., and Struve, O., spectrographic observations of peculiar stars, I, 309. Two interesting nuclei of planetary nobulæ: IC 418 and NGC 40, I, 311.

Swyer, G. I. M., Zuckerman, S., effect of denervation on structure and hormonal responses of monkey prostate, III, 672.

Sydenstrieker, V. P., clinical manifestations of ariboflavinosis, III, 597. Clinical manifestations of nicotinic acid and riboflavin deficiency (pellagra), III, 777. Nicotinic acid, III, 1036. Kelly, A. R., and Weaver, J. W., aribo-

flavinosis with reference to ocular manifestations, III, 1036.

Sydow, G. von, cow's milk idiosynerasy, III, 56. Weight of healthy breast-fed infants during first years of life, III, 410. Sykes, C., superlattices, I, 331.

See also Cox, W. F.

Sykes, H.J. See Spencer, C.C.Sykes, J.F. See Moore, L.A., and Taylor, N. B.

Sykes, W. P. See Ellinger, F. H.

Sykowski, P. See Himwich, H. E. Sylvén, B., selectivity and sources of error in demonstrating mucin with mucicarmine as compared with meta-chromatic method, III, 414.

Symmers, D., young reticulated argentophilic form of epithelioid tubercle, III, 723.

Symonds, C. P., neurology and mental disorder, III, 431.

Synge, R. L. M. See Martin, A. J. P. Syrrist, A. See Rinvik, R. Szabó, B. H. See Becker, Eugene.

Szabo, I. See Lipschütz, A.

Szandányi, Z. See Fernbach, J. von. Szántó, G. See Várady, J.

Szanto, P. B., and Burack, S., diagnostic value of Takata-Ara reaction in cerebrospinal fluid, III, 745.

Burack, S., and Kreisler, O., diagnostic value of colloidal carbon flocculation test in cerebrospinal fluid, III, 746. See also Burack, S.

Szarka, A. J., assay for progesterone based on inhibition of uterine cestrus, III, 196.

Szász, A. von, adrenals in atrophic sucklings, III, 437.

and Gardos, S. von, treatment of liver atrophies in sucklings, III, 364.

Szasz, G.J., changes in chemical equilibria in liquid interfaces, I, 114.

Szekely, J. L., open rack for syringe outfit, III, 235.

Szendi, B., causes of neonatal mortality, III, 449.

Szent-Györgyi, A., biological oxidation and vitamins, III, 517. Towards a new biochemistry? Ill, 770. Energy levels in biochemistry, III, 1039.

and Banga, I., adenosinetriphosphatase, III, 797.

See also Banga, I.

Szép, O. See Bodnar, J.

Szepsenwol, J., differentiation of motor cells of spinal cord in tissue cultures, III, 177. First neurofibrillar differentiation in chick embryo studied in vitro, III, 720. Influence of somites on differentiation and direction of nerves in chick embryo cultures, III, 720. Course of radicular and fascicular nerve fibres in chick embryo cultures, III, 720. See also Rojas, P.

Szigeti, B., determination of oxyhemoglobin and methæmoglobin by photoelectric method, III, 71.

Szirmai, F., vitamin-C and serum hypersensitivity, III, 27. Action of vitamin-C in treatment of acute infectious diseases, III, 119.

Szymanowitz, R., condenser for use during digestion operations, I, 432.

Т.

Tabor, S. H., Weisler, H., and Litvak, A. M., use of pertussis vaccine therapeutically, III, 52.

Tachi, I., electrolytic reduction potentials of organic compounds. XXVIII. Determination of sugars by polarographic method; determination of pentoses and pentosan, II, 59.

Tadros, IV., preparation of a-chloro-a $\beta\beta$ triphenylethylene, II, 319.

See also Zaki, A.

Taffel, M., and Harvey, S. C., effect of sulphanilamide on wound healing, III, 29Î.

See also Burr, H. S.

Tagaki, H. See Tsurumi, M.

Tage-Hansen, E., treatment of K avitaminosis in diseases of bile ducts, III,

Tager, M. Sec Lewis, R. A.

Taggart, R. A. See Watson, A. F. Tai, A. P., displacement of hydroxyl from

aluminium oxychloride hydrosol and basic aluminium chloride solutions, I, 259.

Tainter, M.L., sympathomimetic amines as adrenaline substitutes, III, 1049. See also Gray, H., and Schulte, J. W.

Tait, R. M., treatment of osteomyelitis of small bones with X-rays, III, 1058. Tajima, Y. See Ueno,  $\tilde{S}$ .

Tajiri, I., and Shibata, Z., reduction

equilibrium of ferrous oxide in liquid iron by hydrogen, I, 15.
Takacs, W. S. See Toomey, J. A.

Takagi, K., effect of ultrafiltrate of toad's

blood on contractions of the toad's gastrocnemius muscle, III, 851.

Takagi, N., salt and water exchange in fevers, III, 213.

Takahashi, H. See Asano, M. Takahashi, K., antigonadotropic substance

in rabbits, III, 508.

Takahashi, T., isomerides of bixin and methylbixin; synthesis of dihydrobixin from dihydromethylbixin, II, 50

Takahashi, W. N. See Rawlins, T. E. Takahashi, Y., pharmacological action of poison of Enhydris plumbea (Boic), III, 131.

Takahasi. See under Takahashi. Takamine, T. See Tanaka, Y. Takano, M. See Yanagisawa, K.

Takano, T., amylolytic activity of lung I. Determination of optimal tissue.  $p_{\rm H}$  and influence of halogen salts. II. Efficiency of digestion of amylase and influence of halogen salts. III. Influence of heavy-metal salts. IV. Influence of hetero- and homogeneous blood sera in reaction media. V. Influence of ultra-violet radiation, III, 470. Influence of organ-extracts on diastase in blood of right and left ventricles, Ill, 494.

and Hsiang, N. S., iodic acid val. in serum of patients suffering from chronic opium and heroin intoxication, III, 615.

Takasaki, M., fowl excrement. Amounts excreted; treatment. IV., Ill, 363.

Takase, S. See Ueno, S.

Takashima, S., measurement of dielectric loss. I. Lohdes apparatus for measuring dielectric loss factor. II. Experimental result of measuring dielectric loss factor of polar-nonpolar solution. III. Quartz condenser for measuring small dielectric loss factor. IV. Experimental result of measuring dielectric loss factor of cyclohexanol in benzene, in cyclohexane, and in decalin. V. Calculation of "time of relaxation," "molecular radius," and molecular polarisation, I, 243. Takata, T. See Atsuki, K.

Takeda, K., triterpenes from Japanese Skimmia species. I. Skimmiol and skimmione, II, 327.

See also Kuwada, S.

Takematsu, M. See Inoue, T., and Umezu, M.

Taketani, M. See Sakata, S.

Taketomi, N., invertase. V. Chemical constitution of koji-invertase, III, 471.

Takeya-Sikô, cerebral findings in acute phosphorus poisoning, III, 992.

Takigawa, H. See Oku, M. Takizawa, S. See Oku, M.

Takubo, T. See Ochiai, E. Takuma, T., and Sakurai, K., erythropoietic action of soya flour, III, 323.

Talanova, E. V. See Karjagina, M. K. Talbot, F. B., and Talbot, N. B., disorders of internal gland secretion in children, III, 1001.

Talbot, J. H., studies at high altitudes. II. Morphology and oxygen capacity of blood, III, 848.

Talbot, N. B., basal energy metabolism and creatinine in urine. I. Children, III,

Butler, A. M., MacLachlan, E. A., and Jones, R. N., definition and elimination errors in hydrolysis, extraction, and spectrochemical assay of  $\alpha$  and  $\beta$ neutral urinary 17-ketosteroids, III, 194.

Hoeffel, G., Schwachman, H., and Tuohy, E. L., serum-phosphatase in diagnosis of cretinism and juvenile hypothyroidism, III, 1002.

Wolfe, J. K., MacLachlan, E. A., and Berman, R. A., chromatographic separation and colorimetric determination of alcoholic and non-alcoholic 17-ketosteroids in extracts of human urine, III, 716.

See also Talbot, F. B.

Talbott, J. H., periodic paralysis, III, 657. Coombs, F. S., Consolazio, W. V., and Pecora, L. J., diabetes insipidus associated with diabetes mellitus, III,

See also Consolazio, W. V., and Lever, W. F.

Taliaferro, I. See Haag, H. B. Tallichet, A. See Ruzicka, L.

Talmud, D., intraglobular absorption of organic substances by protein solutions, I, 412.

See also Bresler, S. E.

Talwalkar, S. S. See Limaye, D. B. Tamaki, K. See Schaller, W. F.

Tamamushi, Y., synthesis of a keto-derivative of glyoxaline; preparation of 4-methylglyoxaline-5-propionic ester, II, 149. Synthesis of an alkamine derivative of glyoxaline, II, 149.
Tamartschenko, M. E., effect of mineral

components in rations on energy exchange in the organism, III, 691.

Tamele, M. W., Ott, C. J., Marple, K. E., and Hearne, G., derivatives of allylic chlorides; metathesis reactions of methallyl chloride (isobutenyl chloride) II, 82.

Ryland, L. B., and Irvine, V. C., potentiometric determination of mercaptans in aqueous alkaline solution, II, 386.

See also Hearne, G.

Tamm, I., mesons in a Coulomb field, I, 70. Radiation emitted by uniformly moving electrons, I, 140. Motion of mesons in electromagnetic fields, L 288.

See also Landau, L. Tamura, K. See Majima, R. Tamura, T. See Kakinuma, S. Tanabe, E. See Kazimoto, Y.

Tanabe, T., pharmacology of anthelmintic drugs, III, 38.

Tanaka, A., and Tuboi, S., effect of potassium β-indolylacetate on growth of mouse carcinomata, III, 207.

Tanaka, J., synthesis of 3-indolylacetic acid. I., II, 303. Colorimetric determination of 3-indolylacetic acid, II, 308.

Tanaka, K., absolute force of [frog's] heart, III, 77.

Tanaka, M. See Fennel, E. A.

Tanaka, Y., reactions in the solid state at higher temperatures. V. Reaction between magnesium oxide and stannic oxide in the solid state, I, 481.

and Takamine, T., vibrational structure of  ${}^2\Sigma_g + \leftarrow {}^1\Sigma_g + \text{Rydberg series of N}_2$ , I, 290. Vibrational structure of  ${}^4\Sigma_g (O_2^+) \leftarrow {}^3\Sigma_g^-$  Rydberg series of  $O_2$ , I,

Tananaev, N. A., and Tegentzeva, L. P., determination of  $p_{\rm H}$  in coloured and turbid solutions, I, 425. Fractional detection of cobalt and lead, I, 430.

Tandan, G. C. See Day, C. D. M.

T'ang, B. H. Y., use of charred lens-paper for filtration of coarse particles, III, 820.

Tang, C. C. See Hoeppli, R.
Tang, F. F. See Huang, Y. W.
Tang, P. S., respiration in living cell, 111,

and Wang, J. S., thermodynamic formulation of water relations in an isolated living cell, III, 468.

See also Chen, H. K.

Tang, T. H., and Chao, C. H., derivatives of thymol, II, 10.

Chao, Y. S., and Wang, C. W., chemical constituents of insect wax, III, 18.

and Hsü, C. W., chemical composition of "I-mu-tsao," III, 542. Orthosiphone stamineus, Benth., III, 542.

Tang. Y. Z., sex difference in growth in gonadectomised albino rats, III, 870.

Tange, U., and Sasaki, H., vitamin- $B_2$  complex. VII. Rat growth factor in liver filtrate; evidence for its multiple nature, III, 210.

Tanghe, L. J. See Helmkamp, R. W. Taniguchi, M., solubility curve of high mol. wt. compounds, I, 260.

Taniguchi, S., influence of vitamin-A and -D on growth changes produced by feeding of inorganic iron, III, 593.

Tanikawa, E., biology of organisms of the coli group isolated from intestines of oysters, III, 51.

Tanner, F. H., and Tollman, J. PWeltmann serum coagulation test, III,

Tannhauser, S., lipoid storage cells in lymphosarcoma, III, 591.

Taperova, A. A., sulphuric acid treatment of phosphates. IV. System CaSO<sub>4</sub>of phosphates. IV. System CaSO<sub>4</sub>-H<sub>3</sub>PO<sub>4</sub>-H<sub>2</sub>O, 1, 115.

Taplin, G. V., scrum treatment of pneumo-

coccal pneumonia, III, 393.

Jacox,  $\hat{R}$ . F., and Howland, J. W., sodium sulphapyridine by hypodermoclysis, III, 459.

Tarama, K. See Matsumura, S.

Tarasenkov, D. N., and Komandin, A. V. vapour pressure of tantalum and niobium pentachloride, and of their mixtures with titanium tetrachloride, I, 331.

See also Komandin, A. V.

Tarasikov, N. A. Sec Jaitschnikov, I. J. Tarassuk, N. P., and Richardson, G. A., inhibition of lipase activity in raw milk, III, 795.

Tarassuk, N. P., and Smith, F. R., relation of surface tension of rancid milk to its inhibitory effect on growth and fermentation of Str. lactis, III, 629. See also Palmer, L. S.

Tarbell, D. S., and Weaver, C., action of organometallic compounds on dimethyl-

maleic anhydride, II, 52.

Tarbutton, G., Egan, E. P., jun., and Frary, S. G., phosphorus-halogen compounds from phosphorus pentoxide and halides; properties of phosphorus trifluoride and phosphorus oxyfluoride, I,

Tareev, B. M., thermal conductivity of colloidal systems, I, 258.

Tarnopol, L., thyration-controlled annealing furnace, I, 388.

Tarr, H. L. A., bacteriostatic action of nitrites, III, 536. Trimethylamine oxide and trimethylamine in man, III, 603. Action of nitrites on bacteria, III, 925.

Tartakovskaja, V. E., and Chazina, J. G., heating curves of iron ochre, I, 125.
Tartakovski, I. S. See Filippova, N. S.
Tartar, H. V., and Garretson, H. H.,

thermodynamic ionisation constants of sulphurous acid at 25°, I, 264. Newschwander, W. W., and Ness, A. T.,

thermodynamic study of system zinc sulphate-sulphuric acid-water at 25°,

See also Caughlan, C. N., and Jolley, J. I.Tartter, A., uric acid and hypoxanthine as pigment constituents of the wings of Pieridæ, III, 1022.

Taschek, R. F. See Kanne, W. R. Tashiro, S., Badger, E., and Younker, W. is chromodaeryorrhœa a diapedesis of red corpuscles? Ill, 551.

Taszkan, R., pathological and serological

aspect of anaphylaxis, III, 478. Tatarinova, L. See Pinsker, Z.

Tate, J. T. See Hagstrum, H. D. Tatel, H. See Staub, H.

Tatievskaja, E. P., effect of water vapour on reduction of magnetite and hæmatite by carbon monoxide, I, 477.

Tatman, E. C. See Foster, A. C. Tatsumi, M. See Kasahara, M. Tatum, A. L. See Longley, B. J.

Tatum, E. L., vitamin-B requirements of Drosophila melanogaster, III, 684. See also Beadle, G. W.

Tatum, H. J., and Kozelka, F. L., distribution, excretion, and rate and site of detoxication of metrazol, III, 915.

Nelson, D. E., and Kozelka, F. L., effects of morphine and carbon tetrachloride on rate of disappearance of ethylisoamylbarbituric acid, III, 788.

Tatum, W. L. See Elliott, J. Taub, W. See Perrottet, E.

Taube, H., chain reactions of ozone in aqueous solution; interaction of ozone and formic acid, I, 472.

and Bray, W. C., chain reactions in aqueous solutions containing ozone, hydrogen peroxide, and acid, I, 118.

Tauber, H., and Laufer, S., colour test for p-aminobenzoic acid, the chromotrichia factor, II, 254.

Taubman, A. B., structure of adsorption layers and form of surface tension isotherms, 1, 165. Horizontal orientation and solvation of molecules in adsorption layers, I, 207. Molecular orientation in adsorption layers and Traube's rule, I, 255. Surface activity and adsorption in non-aqueous solutions, I, 256.

Taussig, J., and Williams, G. D., skin colour and skin cancer, III, 113.

Cavenner, R. W. H., vitamin-C deficiency and the potato, III, 778.

Tawde, N. R., and Patankar, V. S., true measure of relative band intensities, I,

Taylor, A., particle size by X-ray method, I, 195. Study of carbon by Debye-Scherrer method, I, 245.

Taylor, Alfred, and Agren, G., sulphapyridine in secretin-stimulated pancreatic juice and bile of cats, III, 605.

Taylor, A. H., and Kerr, G. P., distribution of energy in visible spectrum of daylight, I, 137.

Taylor, A. H., jun., and Crist, R. H., rate and equilibrium studies on thermal reaction of hydrogen and iodine, I,

Taylor, A. L. See Norman, R. M., and Perry, C. B.

Taylor, A. R., apparatus for drying from the frozen state, III, 820.

Sharp, D. G., Beard, Dorothy, Finkelstein, H., and Beard, J. W., concentration and purification of equine encephalomyelitis vaccines, III, 1075.

See also Neurath, H., and Sharp, D. G. Taylor, A. W., and Stewart, J., toxins produced by Clostridium welchii in simple medium, III, 928.

Taylor, C. V., and Wagtendonk, W. J. van,

growth studies of Colpoda duodenaria in absence of other living organisms, III, Taylor, F. H. See Peterson, O. L.

Taylor, F. H. L. See Heath, C. W., and Strauss, E.

Taylor, F. V., change in size of afterimage in total darkness, III, 749.

Taylor, G., sulphathiazole therapy in infantile diarrhœa, III, 906.

Taylor, G. F., and Day, C. D. M., osteomalacia and dental caries, III, 120.

Taylor, H. A. See Burton, M., and May, L. Taylor, H. B. See Badham, C.

Taylor, H. E., and Smith, R. P., marrow sclerosis associated with massive myeloid splenomegaly, III, 835.

Taylor, H. J., Fraser, D., and Dabholkar, V. D., possibility of detecting a doublycharged proton by photographic method, I. 95.

Taylor, H. S., contact catalysts and industrial background, I, 342.

and Fehrer, II., dehydroaromatisation of n-heptane, II, 237.

See also Briggs, R. A., Fehrer, H., Guyer, W. R. F., Salley, D. J., and Turkevich,

Taylor, J. K. See Smith, Edgar R. Taylor, L. F., accuracy in chemical analysis, I, 218.

Taylor, L. W., and Lerner, I. M., effect of varying levels of wheat bran on age at sexual maturity, III, 114. See also Lorenz, F. W.

Taylor, M. D. See Randall, M.

Taylor, N. B., and Waters, E. T., isinglass as transfusion fluid in hæmorrhage, ·III, 642.

Weld, C. B., and Sykes, J. F., parathormone tolerance in dogs, III, 184.

Taylor, N. W., and Doran, R. F., elastic

and viscous properties of several potashsilica glasses in the annealing range of temperature, I, 203.

Taylor, R. G. See Nightingale, (Miss) D.

Taylor, R. L. See Jones, J. L.

Taylor, R. M., experimental infection with influenza A virus in mice; increase in intrapulmonary virus after inoculation and influence of various factors thereon, III, 808.

Taylor, T. I., and Glockler, G., confirmation of theory of thermal diffusion, I, 8. Taylor, W. H. See Hargreaves, A., and

Smith, G. F.

Teague, D. M. See Beach, E. F., and Erickson, B. N.

Tecon,  $R. \dot{M}$ ., chronic jaundice, III, 272. Tedeschi, C., fibromuscular thickening in walls of veins adjacent to arteries, III,

Teeter, H. M. See Adams, R.

Tegentzeva, L. P. See Tananaev, N. A. Tei, C., pharmacological action of toxin of Salmonella enteritidis, Gärtner, III, 39. Teicher, I. Sec Rabinovitch, J.

Teitelbaum, H. A., and Harne, O. G., closed-circuit metabolism apparatus for studying oxygen consumption of control and thyroactivator-treated guinea-pigs, III, 946.

and Langworthy, O. R., effects of atropine, pilocarpine, prostigmine, eserine, mecholyl, and ephedrine on

urinary bladder, III, 786.
Telang, M. S., and Nadkarny, V. V., kinetics of reaction between potassium persulphate and alkyl iodides. III. Catalytic activity of a weak acid, I, 51. Teleky, L. See Schwarz, E.

Telfair, D., and Pielemeier, W. H., restricted rotation potential and frequency assignment in propylene, I, 405.

Telford, I. R., Emerson, G. A., and Evans, H. M., microscopic lesions without functional impairment of striated muscles of suckling vitamin-E-low rats, III, 565.

Teller, E. See Critchfield, C. L., Knipp, J., Kuper, J. B. H., Lyddane, R. H., and

Sachs, R. G.

Temkin, M., Arrhenius equation and active complex method, I, 380.

Temnikova, T. I., isomeric transformations of a-keto-alcohols. II. Acetylphenyland benzoylmethyl-carbinol, II, 44.

and Veksler, V. I., anomalous reactions of a-bromo-ketones. II. Methyl a-bromohexyl ketone, II, 351.

Temperly,  $H.\ N.\ V.$  See Sauer,  $J.\ A.$  Templeman,  $IV.\ G.$  See Blackman,  $G.\ E.$ Templeton, R. D., and Adler, H. F., relation of transportation force to motility in colon of dog, III, 271.

Galapeaux, E. A., and Adler, H. F., reaction of dog's colon to subcutaneous morphine, III, 695.

See also Adler, H. F.

Temsche, M. van. See Nelis, P. Tendeloo, H.J.C., Buy, J.S., and Huyskes, J. A., determination of  $p_{\rm H}$  with thymoquinhydrone electrode, I, 58.

Tennant, R., and Liebow, A. A., actions of colchicine and ethylcarbylamine on tissue cultures, III, 281.

See also Hirschfeld, J. W., and Liebow, A. A.

Tennent, D. H., and Ito, T., oogenesis of Mesophilia globulus, III, 825.

Teplick, G. See Doane, J. C.
Terada, B., and Ryo, S., active substance
in anthelmintic "Raigan" in taniasis, III, 614.

Terenin, A., spectral investigation of chemical processes in organic compounds at low temperatures. I. and II., I, 72, 397, 398.

Terentiev, A. P., and Schtscherbakova, K. D., determination of reactive hydrogen by Grignard's reagents in an atmosphere of carbon dioxide, II, 344. Terentieva, I. See Tzukervanik, I.

Terranova, R. See McGavack, T. H. Terry, A. N. See Holmes, A. D.

Terry, L. L., Thompson, L. D., and Edwards, J. C., immune response in drugtreated cases of pneumococcal pneumonia, III, 1070.

Terry, R. C., mixing starch solution, I, 174. Terry, T. L., and Chisholm, J. F., studies on keratoconus relative to effect of prolonged application of pressure, III, 10.

Tesarz, J. See Gatty-Kostyal, M.

Tessman, R., blood-type identification cards, III, 552.

Tessmer, C. F. See Dry, T. J. Tetrault, P. A. See Feasley, C. F.

Tetu, I., and Blechmann, M., dissociation between focal and cutaneous allergy in tubercular adults, III, 933.

Teutschlaender, O., light and cutaneous

cancer, III, 277.
Tewari, J. D. See Dass, I. N. D.

Tewkesbury, M. H. See Most, H. Tewksbury, M. P. See Goldwater, L. J. Tezuka, E., bactericidal power of phenol, III, 1065.

Thacker, C. M., Folkins, H. O., and Miller, E. L., free energies of formation of gaseous hydrocarbons and related substances, I, 301.

Thacker, E. A., blood pressure studies on university students; effect of exercise on essential hypertension, hypotension, and normal subjects, III, 336.

Thacker, E. J. See Forbes, E. B., and Voris, LeR.

Thaddea, S., clinical symptoms of adrenal

insufficiency, III, 348. Thau, IV., action of hormones and vitamins on the eye, III, 89.

See also Myerson, A.

Thayer, S. A. See Doisy, E. A., jun.
Theilacker, W., and Schmid, W., determination of sulphur in organic compounds

by hydrogenation, II, 180.

Theiler, M., and Gard, S., encephalomyelitis of mice. I. Characteristics and pathogenesis of virus, III. Epidemiology, III,

Thelander, H. E., diphtheria and chemotherapy, III, 908. Infection in newborn, III, 1065.

and Cholffin, M., neonatal cortical insufficiency (Addison's disease) associated with adreno-genital syndrome, III, 867.

and Shaw, E. B., cerebral complications of infectious mononucleosis, III, 965. See also Pryor, H. B.

Thelen, A. See Herzberg, K.

Thelin, J. H., continuous water remover, I,

Theorell, H., cytochrome-c. IV. Magnetic properties of ferrous and ferric cytochrome-c, III, 793.

and Akesson, A., eytochrome-c. Electrophoretic purification of cyto-chrome-c and its amino-acid composition. II. Optical properties of pure cytochrome-c and its derivatives. III. Titration curves, III, 793.

Therman, P. O., transmission of impulses through Burdach nucleus, III, 984. Thewlis, E. W. See Meyer, O. O.

Thewlis, J., systematic determination of crystal orientation, I, 350.

Thiel, G. A. See Dreveskracht, L. R. Thiele, W., and Guzinski, P., sympathetic nervous system and vitamin-A metabolism, III, 891.

Thielmann, K., ferromagnetism and its carrier in system manganese-bismuth, I,

Thienes, C. H., Lombard, C. F., and Leser, A. J., effects of chronic nicotine poisoning of rats on viability of young and on adrenal gland, III, 1056. See also Leser, A.J.

Thiers, H. See Savy, P.

Thiery, J. P. See Urbain, A.
Thiessen, P. A., Beischer, D., and Gillhaussen, H. F. von, molecular layers as dielectrics of high breakdown potential, I, 448. Electrical resistance of single crystals of long-chain fatty acids, I, 448. Thilo, E., chemistry of silicates. IX. Trans-

formation of tremolite into diopside on

heating, I, 230.

Thimann, K. V. See Commoner, B.

Thistle, M. W., Gibbons, N. E., Cook, W. H., and Stewart, C. B., storage of liquid blood, III, 831.

Sec also Woodcock, A. H.

Thom, D. A., psychological aspects of adolescence, 111, 1009.

Thomas, A. R. See Dean, D. M.

Thomas, C. B., France, R., and Reichsman, F., prophylactic sulphanilamide in rheumatic fever, III, 610.

Thomas, C. C., herpes simplex [treatment with auto-serotherapy], III, 807.

Thomas, D. E., crystal lattice deformation of rolled magnesium, I, 246. Measurement of stress by X-rays, I, 348. Slide rule for X-ray diffraction by cubic crystals, I, 484.

Thomas, D. G. See Baehmann, W. E.

Thomas, H. See Koskoski, W.

Thomas, H. C., velocity of chlorination, I,

Thomas, H. W., Meredith, T. N., and Wunderly, H. L., osteodystrophia disseminata, III, 823.

Thomas, J. B., influence of indolyl-3-

acetic acid on protoplasm, III, 712. Bio-electricity, III, 793.

Thomas, J. E., improved cannula for gastric and intestinal fistulæ, III, 765.

Thomas, J. M. See Marks, T. M. Thomas, J. O. See De Eds, F. Thomas, J. W., comparison of cedar oil

and other materials in making slides of atmospheric pollen, III, 56. and Forsythe, J. R., allergy in relation to purpura, III, 729.

and Kinell, J., gastro-intestinal allergy, 111, 811.

and Renshaw, R. J. F., proctoscopic observations in gastro-intestinal allergy, III, 445. Rectal tests for gastro-intestinal allergy, III, 936. Thomas, L. See Dingle, J. H.

Thomas, L. B., monochromatic source of mercury resonance radiation, I, 348.

Thomas, L. H. See Lande, A. Thomas, M. H., and Wetmore, F. E. W., configuration of the  $\Delta\beta$ -butenes, II, 81.

Thomas, R., internal pair production in radium-C', I, 23. See also Batdorf, S. B.

Thomas, R. E. See Moore, F. J.

Thomas, R. G., geochemical aspects of animal ecology, III, 902.

Thomas, R.J. See Maxwell, C.H. Thomas, S., continuous microscopical

observations, III, 800.

Thomas, S. L. S. See Linstead, R. P. Thomas, T. R. See Silverman, L.

Thomas, W., and Mack, W. B., susceptibility to disease in relation to plant nutrition,

Thompson, A. F., jun., Burr, J. G., jun., and Shaw, E. N., preparation and properties of acetylenic tertiary carbinols, II, 83.

Milas, N. A., and Rovno, I., synthesis of unsaturated substances from β-ionone and substituted vinylacetylenes, II, 167.

Thompson, C. R. See Krieger, C. H.

Thompson, E. See Hall, L. T. Thompson, F. C. See Hargrave, J.

Thompson, H.C., acute lymphatic leukæmia with unusual number of monocytes, III,

Thompson, H. E., jun., Steadman, L. T., and Pommerenke, W. T., transfer of bismuth into fcetal circulation after maternal administration of sobisminol, III, 1054.

See also Steadman, L, T.

Thompson, H. W., infra-red spectrum and internal torsion of dimethyl sulphide, I, 71. Thermodynamic functions of carbon suboxide, I, 320. Thermodynamic functions and equilibria of formaldehyde, deuteroformaldehyde, phosgene, and thio-phosgene, I, 320. Free energy of methyl cyanide and equilibrium constants of related reactions, I, 376. Dissociation of sulphuryl chloride, I, 376.

Thompson, J. C., and Elliott, C. K., treatment of chronic arthritis with gold sodium thiosulphate, III, 917.

Thompson, James C. See Crosbie, A., and Stewart, C. P.

Thompson, J. W. See Greenstein, J. P.,

and Maver, M. E.
Thompson, K. W. See McQueen-Williams,

Thompson, L. D. See Terry, L. L. Thompson, M. R. See Martin, G. J.See Terry, L. L.

Thompson, N. W. See Skerrett, N. P.

Thompson, O. E. See Boldyreff, W. N.
Thompson, R. F., [determination of]
papain, III, 1063.

Thompson, R. W. See Nier, A. O.
Thompson, S. Y. See Braude, R.
Thompson, T. G. See Hamm, R. E.
Thompson, T. L., determination of cadmium, I, 280.

Thompson, V., and Gross, E. G., excretion of combined morphine in tolerant and non-tolerant dog, III, 788.

Thompson, W. D. See Carmichael, E. H. Thompson, W. M., treatment of progressive myopia with base-in prisms, III,

Thompson, W. P., pathogenesis of Banti's disease, III, 164.

See also Britten, E. J.

Thomson, D. See Clayton, W. Thomson, D. L., anterior pituitary and intermediate metabolism, III, 574.

Collin, J. B., and Selye, H., antihormones, III, 439.

Thomson, G. M., inductopyrexia, III, 1057.

Thomson, G. W. See Calingaert, G.

Thomson, S. See Glazebrook, A. J. Thorn, G. W., and Emerson, K., jun., gonadal and adrenal cortical hormones in production of ædema, III, 562.

Howard, R. P., and Dayman, H., [blood] electrolyte changes in pulmonary tuberculosis, III, 838.

Thorn, G. W., Koepf, G. F., Lewis, R. A., and Olsen, E. F., carbohydrate metabolism in Addison's disease, III, 185. See also Engel, L. L.

Thorndike, E. M., microphotometer for spectrochemical analysis, I, 222

Thorne, D. W., and Burris, R. H., respiratory enzyme systems in symbiotic nitrogen fixation. II. Respiration of *Rhizobium* from legume nodules and laboratory cultures, III, 1065.

Thornton, H. G., effective and ineffective association between root-nodule bacteria and the host plant, III, 1083.

See also Chen, H. K., and Nicol, H.
Thornton, M. H., Kraybill, H. R., and
Broome, F. K., sterol glucosides from
cottonseed oil, III, 1084.

Thorold, G. P. See Ellman, P.

Thoroughman, J. C., malaria transmission by blood transfusion, III, 554.

Thorp, R. H., micro-determination of iron

in biological materials, III, 716.

Thorp, W. T. S. Sec Miller, R. C., and Sholl, L. B.

Thorpe, R. S. See Whitmore, F. C.
Thorpe, W. V., and Williams, R. T.,
detoxication. IX. Synthesis of possible biological oxidation products of sulphanilamide, II, 96. Isolation of acetylsulphathiazole from human and rabbit urines following administration of M. & B. 760, III, 124.

and Williams, R. T. [with Shelswell, J.], detoxication. VIII. Alleged formation p-hydroxylaminobenzenesulphonamide and p-aminophenol from sulphanilamide in vivo; colour reactions used for detection; possible formation of aminophenolsulphonamides, II, 96.

Thorvaldson, T., and Schneider, W. G., composition of "5:3" calcium aluminate, I, 304.

See also Schneider, W.G.

Throckmorton, W. H. See Wood, J. H. Thrower, W. R., sulphonamide therapy, III, 458.

Thums, K., congenital cerebral diplegia (Little's disease), III, 993.

Thurmon, F. M., and Benotti, N., excretion of bismuth in urine of patients treated with bismuth ethylcamphorate, III, 296. Thysell, T., diet, blood, ascorbic acid, and capillary fragility test, III, 26.

Tibbs, S. R. See Buckingham, R. A. Tibilov, S. P., adsorption of organic vapours on organic adsorbents studied extinction of fluorescence, I, 464.

Tichomolov, P. A. See Favorski, A. E. Tichovskaja, Z. P., seasonal variations in productivity and photosynthesis of Laminaria saccharina in the Dalne-Zelenetz Bay of Barents sea, III, 481.

Tidridge, W. See Martin, W. H. Tien, S. P., significance of pregnanediol

in pregnancy urine, III, 1012. See also Wang, Y. Tigertt, IV. D. See Ashworth, C. T.

Tikka, J., and Heino, E. K., substances in yeast which reduce Tillmans' indicator, III, 924.

Tilitschenko, M. N., accelerating effect of ketones on Cannizzaro-Tischtschenko reaction. III. Action of  $\beta\beta$ -dihydroxymethylbutan- $\gamma$ -one, II, 59.

Tiller, G., Kauffmann's water test in children, III, 17.

Tillim, S. J., and Squires, M. T., neuro-dermatitis treated with hypoglycæmic reactions [insulin], III, 868.

Tilling, T. See Vonkennel, J. Tillisch, J. H., hæmorrhage from duodenal ulcer in pilot while flying, III, 656. Typhoid tularemia, III, 807.

Tilmans, J. J., crystallisation of ammonium chloride and bromide from aqueous solution, in presence of various cations, I, 371.

Timofeevski, A. D., prolonged culture of human malignant tumour tissue, III,

and Benevolenska, S. V., action of synthetic carcinogenic hydrocarbons on tissue cultures, III, 887.

Timonin, M. I., interaction of higher plants and soil micro-organisms. II. Microbial population of rhizosphero in relation to resistance of plants to soilborne diseases, III, 61.

Timoschtschuk, D. V. See Dementii, V. S. Timoschuk, D. V., width of the level Ag<sup>22</sup>,

I, 440.

Timroth, D. L., and Vargaftik, N. B., thermal conductivity and viscosity of steam at high temperatures and pressures, I, 200.

Timus, D. See Nitzescu, I. I. Tin, M. T. See Mookherji, A.

Tindal, C. H., Straley, J. W., and Nielsen, H. H., infra-red spectra of SiH<sub>4</sub> and GeH<sub>4</sub>, I, 291.

See also Straley, J. W.

Tindall, J. B., esters of nitro-alcohols, II,

Ting, T. P., and Zirkle, R. E., nature and cause of hæmolysis produced by X-rays, III, 71. Diffusion of salts into and out of X-irradiated erythrocytes, III, 71. Effects of X-rays on permeability of erythrocytes to water and nonelectrolytes, III, 244. Effect of X-rays on vapour pressure of blood and its components, III, 244.

Ting,  $\bar{Y}$ . C., and Chao, I., effect of osmotic pressure on sensitisation of toad sartorius muscle to cold stimulation, III, 737.

See also Li, T. H.

Tipton, S. R., respiration of isolated liver and kidney tissues from adrenalectomised rats, III, 263.

Tischtschenko, V. E., Schabaschova, V. N., and Sisoeva, N. D., application of xanthate method of L. A. Tschugaev to dihydric alcohols or their corresponding dibromides, II, 57. Tiselius, A. See Blix, G.

Tishler, M., and Evans, H. M., vitamin-Eactivity of compounds related to a-tocopherol, III, 600. See also Fieser, L. F.

Tislowitz, R. See Dingemanse, E.

Titani, T., Ito, M., and Inoshita, K., action of dilute heavy water on tubercle bacilli, III, 932.

See also Goto, Kokiti, and Yoshida, Tohiti. Titeca, J., narcosis and thermal paralysis of nerve, III, 427. Resting potential and thermal paralysis of nerve, III, 427.

Titievskaja, A. See Kusakov, M.

Titov, A. I., and Levin, B. B., hydrolysis of amines; 2:6-diaminopyridine and 2-amino-6-hydroxypyridine, II, 375. Titova, A. See Balandin, A. A. Titus, A. C., and Sill, C. W., use of silico-

molybdic acid indicator before volumetric oxidation of iron, I, 388.

Tiumantzeva, M. N. See Jermolenko,

Tiurikov, G. S. See Erschler, B.

To, S., and Chin, S., actions of poison of Bungarus multicinctus, Blyth, III,

and Cho, S., effect of einchona alkaloids and their hydro-derivatives on malaria in birds, III, 37.

See also Sasaki, S.

Tobie, W. C., Williams, Roger D., and Robinson, E. J., volatility of N<sup>1</sup>-acylsulphanilamides with steam, III, 784.

Tobin, C. E., effect of adrenalectomy on pregnancy and survival of untreated and sesamé oil-treated rats, III, 437.

Tocantins, L. M., rapid absorption of substances injected into bone marrow, III, 551.

and O'Neill, J. F., infusion of blood and other fluids into circulation via bone marrow, III, 335.

See also Hause, W. A.

Toda, M., solid states of H2 and D2, I,

Todd, A. R., vitamins of B-group, III, 776. See also East, M. E., Ghosh,  $\hat{R.}$ , Lythgoe, B., and Russell, P. B.

Todd, W. R., Ditterbrandt, M., Montague, J. R., and West, E. S., digestion and absorption in man with all but 3 feet of small intestine removed surgically, III, 13.

Todes, O. M., dependence of the laws of size distribution of crystals on kinetics of crystallisation. II. Laws of crystallisation with decreasing concentration in the homogeneous phase, I, 302.

and Karandin, B. N., theory of thermal explosions. IV. Study of loss of heat in closed vessels for purpose of determining explosion constants, I, 388.

and Melenteev, P. V., theory of thermal explosion. III. Explosion from autocatalytic reactions, I, 476. See also Melenteev, P. V., and Roginski,

S. Z.

Todesco, J. M., sulphapyridine and cerebrospinal fever, III, 35.

Todhunter, E. N., and Brewer, W., ascorbic acid, phosphatase, and calcium content of blood of guinea-pigs with varying degrees of seurvy, 111, 332. See also St. John, J. L.

Toennies, G., and Kolb, J. J., methionine. VI. dl-Methionine sulphone, II, 283. See also Callan, T. P., and Kolb, J. J.

Toepfer, E. W. See Van Duyne, F. O. Török, T., spectroscopic determination of alkaline earth metals and of phosphate,

Togasawa, K. See Toriyama, Y.

Toivonen, T. See Virtanen, A. I. Tokarev, N. V., NH, product of explosive oxidation of ammonia, 1, 473.

and Nekrassov, N. I., relationship between initial conditions and pressure increase at explosion [of gas mixtures], I, 118.

Tolansky, S., laws of nuclear structure derived from nuclear spins, I, 142. Use of term "resolving power" in spectroscopy, I, 431.

and Trivedi, S. A., hyperfine structure in are spectrum of bromine, I, 65.

Tolhurst, J. C. See Penfold, W. J.Tolkatschevskaja, N., extractives of emu (Dromadeus sp.) muscle, III, 849. See also Lukomskaja, M.

Tolle, C. D., biological determination of vitamin-D carriers, III, 457. See also Knudsen, L. F.

Tollman, J. P., La Towsky, L. W., Mac-Quiddy, E. L., and Schönberger, S., toxicology of oxides of nitrogen. III. Gross and histological pathology, III, 920.

MacQuiddy, E. L., and Schonberger, S., inhalation of filtered carbon arc fumes and oxides of nitrogen, III, 792.

and Spradling, R. L., scurvy, III, 778. See also La Towsky, L. W., MacQuiddy, E. L., and Tanner, F. H.

Tolman, E. C. See Geier, F. M.

Tolmatschev, J. M., absorption spectrum of gaseous azoimide, I, 397. Spectrum of explosion flame of gaseous azoimide and its mixture with mercury vapour, I, 445.

Tolstaja, M. A. See Chlopin, V. G. Tolstoi, E., and Weber, F. C., protamine zine insulin, III, 96.

Toman, J., flicker potentials and  $\alpha$  rhythm in man, III, 347.

Tomboulian, D. H., and Cady, W. M., radiative X-ray transitions within the L shell, I, 234

Sec also Cady, W. M.

Tomey, E. V., treatment of hæmorrhage and hæmophilia in dental practice, III,

Tomilin, M. I., menstrual bleeding and genital swelling in Miopithecus (Cercopithecus) talapoin, III, 442.

Tominaga, H., and Narita, M., reactivity of carbon, I, 86. Formation of carbon disulphide, I, 86.

Tomkeieff, S. I., metasomatism in basalt of Haddenrig quarry, Kelso, I, 351.

and Marshall, C. E., Killough-Ardglass dyke swarm, I, 231. Tomlinson, H. M., and Ciapetta, F. G.,

anhydrous sodium thiosulphate, a primary standard, I, 482.

Tomlinson, W. J., clinical laboratory photography; preparing photomicropreparing photomicrographs, III, 543.

Tomota, S., and Saito, H., bacterial acylase, III, 623.

Tompkins, F. C. See Mann, D. R. Tompkins, P. C. See Kirk, P. L.

Tompsett, S. L., and Anderson, A. B. plasma-cell partition of blood-lead, III,

Toms, B. A., internal phase and emulsifier as factors determining viscosity of oil-in-water emulsions, I, 411. Hydration of substituted amides of stearic acid, II,

Tomski, H. W., stability of sulphanilamide in water, III, 458. Tannic acid treatment and the pharmacist, III, 699. Tongberg, C. O. Seo Whitmore, F. C.

Tonks, L., transmission of an electron density disturbance along a positive column in a longitudinal field, I, 233.

See also Cummings, C. S. Tooke, F. T., and Nicholls, J. V. V., changes in fundus oculi following splanchnectomy in malignant hypertension, III, 434.

Tooke, T. B., jun. See Drummond, W. F. Toomey, J. A., absorption of poliomyelitis virus [from adrenal] by deficiently medullated nerves, III, 180. Poliomyelitis, III, 994.

and Dice, M. E., blood-promin levels in man, III, 610.

and Roach, F. E., promin in treatment of acute infections, III, 785.

Toomey, J. A., and Takaes, W. S., toxio factor in stools of patients ill with poliomyelitis, III, 396. Attempts to produce urinary concretions in monkey with promin, III, 610.

Toone, E. C., jun., cerebral manifestations of bacterial endocarditis, III, 860. Top, F. H., and Badger, G. F., measles in

Detroit, 1935. II. Protective use of measles convalescent serum, III, 477.

Topley, W.W.C. See Delafield, M.E. Toporov, N.D. See Esafov, V.I.

Topper,  $A_{\cdot,\cdot}$  and Rosenberg,  $H_{\cdot,\cdot}$  basal metabolism of tuberculous children, III, 1039.

Topping, N. H., Cullyford, J. S., and Davis, G. E., Colorado tick fever, III,

Torda, C., effect of sodium citrate on calcium content of nerves, III, 852.

Torii, H., oxidising enzymes in tea leaf. I., III, 702.

Toriyama, Y., Togasawa, K., Ichimura, Y., and Shiratori, S., uses of charged water

vapour, I, 23.
Toropov, N. A., and Konovalov, P. F., binary system magnesium oxide-boric

anhydride, I, 468. Toropova, G. P., fermentation of sucrose, III, 624. Oxidation-reduction of α-hydr-

oxy- and a-keto-acids, III, 922. Torrance, C. C., oxidatiou-reduction potentials of inflammatory lesions of skin, III, 275.

Torrens, R. G., gingivitis, III, 275.

Torrey, F.A., and Levin, E.A., comparison of clinical and pathological diagnosis of malignant conditions of the skin, III, 592.

Torrey, H. C., intensities of radiofrequency spectra, I, 191.

Torstveit, O., and Mellish, C. H., guinea-pig copulatory reflex in response to aqueous extracts of adrenal cortex, III, 761.

Toscani, V. See Milhorat, A. T. Toth, L. A., urine excretion during anoxia

from normal and denervated kiducys in dogs with and without adrenal glands, III, 17.

Touroff, A. S. W., and Vesell, H., ligation of patent ductus arteriosus in case of bacterial endocarditis, III, 248.

Tovbin, M., velocity of solution of solids, I, 51.

and Feldman, M., electrochemical determination of iodine, I, 57.

Toverud, K. U., excretion of aneurin in pregnant and lactating women and in infants, III, 518.

Town, B. W., separation of amino-acids by means of copper salts. III. Hydrolysis of gliadin; dicarboxylate fraction; isolation of r-glutamic acid as hydrolysis product, II, 208. 3:5-Dinitrobenzoyl derivatives of amino-acids and their use in separating isomerides of leucine and valine, II, 213.

Towne, L. E. See Nathanson, I. T. Townsend, A. A.,  $\beta$ -ray spectra of light elements, I, 187.

Townsend, E. W., variations in free hydrochloric acid content of gastric juice in 61 normal subjects, III, 361.

Toy, A. D. F. See Audrieth, L. F.Tozer, G. A., and Arrigoni, L., isotonic, buffered, and preserved intranasal ephedrine sulphate solutions, III, 919.

Trabacchi, G. C. See Ageno, M. Trachsler, W., treatment of pneumonia in children with sulphapyridine, III, 34.

Tracy, A, H., and Elderfield, R. C., pyridine series. II. Synthesis of 2-methyl-3-βhydroxycthylpyridine and of pyridine analogue of thiamin (vitamin- $B_1$ ). III. Synthesis of 2:3-dialkylpyridines from a-formyl ketones. IV. Ethyl propionylpyruvate; its condensation with phenylhydrazine and use for synthesis 2-ethylisonicotine acid, II, 146, 147.

Traisman, A. S., pathology of asthma in children, III, 981.Trantas, N. C., crown-like striped opacity

of the lens [in man], III, 864.

Trapeznikov, A. A., effect of monolayers of insoluble substances on stability of bubbles (elements of foam), I, 374.

Tratt, F. See Schaltenbrand, G.

Traub, E., sensitivity of skin to bee-venom in allergic diseases, III, 147. Congenital stridor, III, 497.

Traube, I., history of capillary chemistry, I,

Traum, J. Sec Haring, C. M.

Travell, J., influence of  $p_H$  on absorption of nicotine from bladder and subcutaneous tissues, III, 297.

and Gold, H., absorption of digitalis preparations from gastro-intestinal tract in cat and man, 111, 1050.

Travia, L., and Veronese, A., hydrolysis of

caseinogen by phosphatase, III, 226.
Treadwell, C. R., and Eckstein, H. C., sterol metabolism in young white rats. IV. Effect of dietary fat on cholesterol metabolism of four generations, III,

See also Slaughter, D.

Treadwell, W.  $\bar{D}$ ., and Gübeli, O., energy of formation and solubility of ferrous

sulphide, I, 299.

Gübeli, O., and Huber, D., double salt of potassium tricyanomanganate and potassium hexacyanomanganate, I, 305.

and Walti, R., quantitative spark-spectrography of solutions, I, 89.

Tredway, J. B. See Sadusk, J. F.

Treffers, H. P., and Heidelberger, M., quantitative experiments with antibodies to specific precipitate. I., Ill, 803

and Moore, D. H., use of infra-red film for electrophoretic and ultracentrifugal analyses, I, 432.

Sec also Heidelberger, M.

Treiman, F. S., dependence of metabolism of caterpillars of Antherœa pernyi, Guér. Mén., on food: early and late oak, III, 682.

Trelles, R. A. See Bach, J. M.

Treloar, A. E., normal blood pressure, III, 652.

Trenis; J. W. See Bohner, C. B. Trenner, N. R., and Bacher, F. A., reduction-oxidation method for determination of vitamin-K<sub>1</sub> and associated quinones and naphthaquinones, II, 156. Treon, J. See Machle, W.

Trethewie, E. R. See Kellaway, C. H.

Trevan, J. W. See Macfarlane, R. G. Treviño, S. N., and Offner, F., a.c.-operated d.c. amplifier with large current output,

Trew, (Miss) V. C. G., ionic diamagnetic susceptibility and diamagnetic correcting constants, I, 404.

Trikojus, V. M., and White, D. E., substituted indenes. I., II, 40.

Trim, A. R. H., protein of insect cuticle, III, 367.

Trimble, F., furfural[dehyde] as solvent, I,

Tripoli, C. J., and Fader, D. E., differential diagnosis of and laboratory tests in liver disease, III, 768. Clinical and hæmatological studies in blood dyscrasias, III, 830.

Tripp, F. See Holmes, A. D.

Trister, S. M. See Pacsu, E. Trivedi, S. A. See Tolansky, S.

Troell, L. See Ström, J. Troescher, E. E. See Norris, E. R.

Troisier, J., Bariéty, M., and Kohler, D., effect of sympatholytic drugs on changes in intrapleural pressure produced by histamine, III, 613. Histamine and intrapleural pressure, III, 912.

and Sifferlen, J., nasal instillation of tubercle bacilli in anæsthetised guinea-

pig, III, 231.

Troitzki, G. V., separation of the zones of absorption of colourless substances in chromatographic analysis by determin-

ation of the dielectric constant, I, 350.

Trostler, I. S. Sec McNally, W. D.

Trotter, M. See Read, W. T.

Trotter, W. R., and Eden, K. C., plump type of Graves' disease, III, 1002

Trotzki, J., and Mendelson, R., determination of acetone compounds in urine, III,

Trowell, H. C., use of liver extract in tropical macrocytic anamia, III, 1021.

Troxel, S. M., nomograph for correcting barometer readings for temperature, I,

Trueman, A. E., periods of coal formation represented in British Coal Measures, I, 392.

Trueta, J. See Barnes, J. M.

Truex, R. C., degenerate versus multipolar neurons in sensory ganglia, III, 565. Trufanov, A. V., synthesis of flavin-adenine

dinucleotide in animal tissues, III, 899. and Kirsanova, V. A., ergosterol content of yeast during autolysis, III, 624. Ancurin and riboflavin during auto-

lysis of yeast, III, 797. Truscott, H. L., and Struthers, P. H., development of middle ear of Microtus

pennsylvanicus, III, 824.

Trussell, R. E., and McNutt, S. H., nonpathogenicity of gonococci for larger animals, III, 1069.

See also McNutt, S. H.

Tsai, C., and Lee, J. S., antihæmolytic substance in plasma, III, 961. Sec also Wu, C. H.

Tsang, Y. C. See Chang, H. C. Tsao, S. N. See Frazier, C. N.

Tschagin, I. M. See Bergman, A. G. Tschaika, C. J., morphological changes in heart with age, III, 8.

Tschaikovski, S., apparatus for electrophoresis, I, 20.

Tsehapek, M. V., determination of capillary-condensed water in hydrophilic colloids, I, 43.

and Kretschun, N. B., influence of sorbed vapour on static hysteresis of wetting, I, 38.

Tšchechovitsch, M. D. See Strishevski, I. I. Tschelincev, G. V., and Dubinin, B. M., synthesis of demethoxylated plasmoquin, 8-[N-(δ-diethylamino-a-methyl)butyl]aminoquinoline, II, 303.

and Osetrova, E. D., separation of acriquin [atebrine] into optical antipodes, II, 376.

Tschelincev, V. V., and Nikitin, E. K., condensation of furan derivatives. XIII. Displacement of one aldehyde by another from carbonyl-ethylene compounds, II, 329.

Tschelischtscheva, A.G. See Nikolaev, A.V.

Tschentzov, I. G. Sec Borovik, S. A.

Tschepinoga, O. P., oxidation mechanism of malic, citric, and glutamic acids in rabbit muscle pulp, III, 780. Dehydrogenases of strained and fatigued muscle tissues. III. Ability of minced strained and fatigued muscles to oxidise malic, citric, and glutamic acid, III, 781.

Tscherdincev, S., growth of microcrystalline particles from supersaturated solutions,

I, 476.

Tscherdincev, V. See Frenkel, J. Tscherkaschin, E. E., and Petrenko, G. I., phase equilibria in system Al-Ag, as studied by thermal analysis and con-

ductivity methods, I, 372.

Tscherkasova, E. M., Skljarenko, S. I., and Melnikov, N. N., electrochemical introduction of the thiocyanate radical into organic compounds. II. Aromatic amines, II, 288.

Tschermak-Seysenegg, A., crystallisation

electricity, I, 213.

Tschernakovskaja, T. F., calorimetric determination of acetylene, II, 24.

Tscherniachovski, A. G., development of bligodendroglia, III, 176. Action of cytotoxic serum on microglia, III, 179.

Tscherniaeva, O. A., effect of anti-reticular cytotoxic serum (stimulating and blocking doses) on hæmopoiesis in cancer, III,

Tschernichov, J.A. See Uspenskaja, T.A.Tsehernomordikova, L. A. See Belozerski, A, N

Tschescheva, Z., and Kolesova, M., structure of water envelopes of hydrophilic colloids, I, 13.

and Oseledko, K. N., determination of vapour pressure of aqueous solutions, I, 79.

Tscheshkov, A. M., [influence of corpus cincrum on blood-amylase], III, 838.

Tschigirev, S. D. See Smirnov, A. I.
Tschirkov, I. N., pentlandite from coppernickel deposits of Monche-Tundra, I, 355.

Tschkonia, M. See Zvjagintzev, O. E. Tschovnik, N. G., and Pelkis, D. S., use of glass membranes for measuring decomposition voltage of fused salts, I, 379.

Tschubin, A. See Landsberg, G.
Tschucbanov, Z. F., and Karshavina, N. A., burning of carbon. IV. Oxidation of a

charcoal layer, I, 272.

Tschuchrov, F. V., Arest-Jakubovitsch, R. E., and Kozlova, H. A., composition of jarosites from deposits of Central Kazakhstan, I, 230.

See also Altschuler, V. S.

Tschufarov, G.I. See Udintzeva, V.S. Tschulanovski, V.M., two new electron levels of CO, I, 147.

Tschurbakov, A. N., aa-dichlorides of

allene scries; action of phosphorus pentachloride on methyl vinyl ketone, İI, 57.

and Riazantzev, V. N., synthesis of methyl vinyl ketone by hydration of vinylacetylene, II, 211. Tseburilkina, V. F. See Lutschinski, G. P.

Tseng, C. L., Sun, C. E., and Li, S. T., calculation of m.p. of fatty acids, II,

See also Sun, C. E.

Tseng, T. P. See Ch'eng, C.

Tseou, H. F., and Chow, T. S., abnormal acetoacetic ester synthesis. II. Reaction of sodium with fluorene and benzyl benzoate, II, 8.

and Pan, T.L., syntheses of di-β-hydroxyethyl sulphide from ethylene oxide and

hydrogen sulphide, II, 2

Tsuchida, R. Sec Kuroya, H.

Tsuchiya, Y., methionine and its derivatives. I. Detection, II, 316.

Tsuda, K., derivatives of pyrrolidine and

piperidine, II, 52.

Fukushima, S., and Oguri, A., hydrogenation of a-diethylaminobutan-y-one, II, 282. Azeotropic mixture of a-diethylaminobutan-y-ol and acetic acid, II, 282.

Sakamoto, S., Matsuda, H., and Kanno, T., preparation of γ-diethylamino-propyl derivatives of 1-aminobenzthiazole, II, 340.

and Yokoyama,  $J., \Delta^{\alpha}$ -norlupinene, II, 55.

See also Ochiai, E.

Tsuge, Y., excretion of tubercle bacilli in glomerulonephritis, III, 538. Bacillary excretion in experimental tuberculosis of rabbits, III, 538.

Tsuji, S. See Nikuni, Z.

Tsukamoto, J., and Kuriyama, S., glycerol as standard liquid of high viscosity, I, 251.

Tsukamoto, Y., vitamin-C content of

organs in rabbits, III, 27.

Tsurumi, M., Iwata, J., and Iriyama, K., variola virus. I. Isolation of cruption-producing substance from vaccine and its crystallisation, III, 55.
Ogasawara, K., and Fujii, K., isolation

of influenza virus, III, 1075.

Ogasawara, K., Kato, T., and Abe, H., tissue culture and serum reaction with elementary body suspensions of influenza virus, III, 1075.

Ogasawara, K., and Tagaki, II., influenza virus, III, 55.

See also Mayeda, S.

Tsuzuki, Y., nature of complex formation between boric acid and organic polyhydroxy-compounds, II, 119. Glycerolysis of starch; mol. wt. and viscosity of the products, II, 315.

and Kimura, Yukio, antioxygenic effects of nitroso-compounds; interpretation of effects from point of view of reson-

ance, I, 381.

Tuboi, S. See Tanaka, A.

Tucker, B. R., relation of hypothalamus to

neuropsychiatry, III, 855.

Tucker, H. F., and Ball, E. G., activity of carbonic anhydrase in relation to secretion and composition of pancreatic juice, III, 703.

See also Ball, E. G.

Tucker, J., treatment of chorea with typhoid shock, III, 861.

Tucker, W. B., and Lessa, W. A., man: a constitutional investigation. I., Ill,

Tuft, L., and Blumstein, G. I., antigenic relationship of shellfish, III, 146.

Tugarinov, V. N. See Levschin, V. L. Tuggle, A. See McCombs, P., and Wein-

traub, S.

Tukey, H. B., and Lee, F. A., growth and development of embryo and fruit of peach as affected by ringing and defoliation of branches, III, 814.

Tukune, K. See Sakamoto, A. Tulane, V. J. See Barnes, R. P. Tullar, P. E. See De Beer, E. J.

Tully, J. P., washing reclaimed silver nitrate crystals with alcohol leads to explosion, I, 173.

Tumanski, S. S., preparation of paraffin emulsions by magnetostrictional vibrations, I, 11.

and Schulman, M. S., change of electric conductivity of water in supersonic field, I, 77.

Tunell, G., notation for derivatives of two types of line integral in thermodynamics, I, 151.

Tunitzki, N., Sarinski, V., and Petrjanov, J., discharge of particles of an aërosol in a dipolar ionic atmosphere, I, 357.

Tunnicliff, R., effect of dissociation of streptococci on their fibrinolytic and anticlotting activity, III, 143.

Tuohy, E. B., clinical use of intravenous anæsthesia alone and with other anæsthetics, III, 913.

See also Lundy, J. S.

Tuohy, E. L., gout, III, 784. See also Talbot, N. B.

Tupper, W. R. See McCullagh, E. P.

Turangui, R. A., and Aguila, P. J., treatment of schistosomiasis japonica with fouadin, III, 916.

Turbina, N. D. See Markevitsch, I. T. Tureen, L. L., form of reflex response in relation to pattern of afferent stimulation, III, 854.

Turell, R., tattooing (puncturation) with mercury sulphide and other chemicals for treatment of pruritus ani and perinei, III, 220. Diseases of colon and rectum. X., III, 1018.

Turfitt, G. E., determination of phytohormone activity, III, 471.

Turkevich,  $J_{\cdot}$ , Fehrer,  $H_{\cdot}$ , and Taylor,  $H_{\cdot}S_{\cdot}$ , chromium oxide gel catalysts for dehydro-cyclisation of n-heptane, I, 274.

and Selwood, P. W., solid free radical as catalyst for ortho-para hydrogen conversion, I, 272.

and Young, II. II., jun., isomerising action of cyclising catalysts, I, 216. Turkevitsch, N. M. See Feduchin, M. P.

Turnbull, D. See Maron, S. H. Turnbull, F. M., sodium sulphathiazole in chronic sinusitis, III, 785.

Turner, A. See Sears, J. E. Turner, A. P. See Robscheit-Robbins,

Turner, A. W., soft curd milk prepared by enzyme treatment method, III, 1031. and Eales, C. E., aërobic, sporulating bacillus forming rotating and migrating colonies, III, 1067.

See also Kellaway, C. II.

Turner, C. D., spontaneous abnormality of rat's ovary accompanied by masculinisation of genitalia, III, 670.

Turner, C. L., adaptations for viviparity in jenysiid fishes, III, 156. Pericardial sac and alimentary tract in goodeid fishes, III, 156. Morphogenesis of gonopodium

in Gambusia affinis, III, 718.

Turner, C. W. See Bergman, A. J., Lewis, A. A., Meites, J., Mixner, J. P., and Reineke, E. P.

Turner, D. F. See Bryan, A. H. Turner, D. G. See Cocker, W.

Turner, D. L. See Marker, R. E. Turner, E. E. See Jamison, M. M.,

and Lesslie, M. S.

Turner, (Miss) E. G., and Wynne, W. P., tetrachloronaphthalenes derived from dichloronaphthalene tetrachlorides and trichloronaphthalenesulphonic acids, II, 215.

Turner, E. L. See Clayton, F. W.

Turner, F. C. See Greenstein, J. P. Turner, F. J., development of pseudostratification by metamorphic differentiation in the schists of Otago, New Zealand, I, 136. Turner, G. P. See Wood, J. II.

 Turner, J. M. See Henderson, Y.
 Turner, J. S., respiratory metabolism of carrot tissue. III. Drift of respiration and fermentation in tissue slices; respiratory quotient. IV. Oxidative anabolism, III, 149.

Turner, J. W. A., optic atrophy associated

with pernicious anemia, III, 260.

Turner, L. A., radioactive isotopes of vanadium, 1, 24.

Turner, O. See Gardner, W. J. Turner, R. B. See Ross, W. F.

Turner, R. S., and German, W. J., functional anatomy of brachium pontis, III,

Turner, S. C. See Montgomery, H. Turner, W. J., porphyrinogenesis, III,

Turnoff, D., and Rowntree, L. G., sublingual

therapy with deoxycorticosterone acetate in Addison's disease, III, 1005.

Turova-Pollak, M. B., and Slovochotova, T. A., isomerisation of polymethylenic hydrocarbons in presence of aluminium chloride. VI. isoPropylcyclopentane, II,

Turovetz, I. M., and Pravdina, L. I., interchange of substances in aged subjects, III, 30.

Turpin, R., Chassagne, P., and Lefcbvre, J., prepubertal thymic enlargement (megalothymia); planigraphic study of thymus during growth, III, 1003.

Tuttle, L. W., Erf, L. A., and Lawrence, J. H., studies on neoplasms with aid of radioactive phosphorus; phosphorus metabolism of nucleoprotein, phospholipin, and acid-soluble fractions of normal and leukæmic mice, III, 453. See also Erf, L. A.

Tuyl, F. M. van, significance of disseminated metallic sulphides in sedimentary

rocks, I, 352.
Twaddle, P. H. See Stroud, W. D.
Twidle, A. H. H. See Belton, J. W.

Twigg, G. H., catalytic isomerisation of  $\Delta^a$ -butene, I, 382.

Twisselmann, N. M., cell content of blood of normal chickens with reference to comparative differential leucocyte counts made with supravital and Wright's staining techniques, III,

See also Beach, J. R.

Twort, C. C., and Baker, A. H., smoke and bacteria in air, III, 298.

Tyagaraja, S., modification of Wilson and Blair's medium for isolation of typhoid

and paratyphoid bacilli, III, 1074. •
Tyler, A., artificial pathenogenesis, III,
953.

and Horowitz, N. H., activities of substituted phenols in stimulating respiration of sea urchin eggs, III, 955.

Tyler, C., calcium and phosphorus metabolism in relation to chemical structure of bone. II. Experiments with moulting birds, III, 109.

Tyler, D. B., mechanism of production of brain damage during insulin shock, III, 499. Effects of body temperature and of pentobarbital on brain damage produced by insulin shock, III, 566. See also Leser, A. J.

Tyler, E., measurement of surface tension by ripple method, I, 179.

Tyler, F. H., microstructure of turtle's liver, III, 489.

See also Snyder, C. D.

Tyndall, A. M. See Munson, R. J.

Tyndall, M. See Magill, T. P.
Tyner, L. E., factors affecting virulence of artificial inoculum of Helminthosporium sativum, P. K. and B., and of Fusarium culmorum (W. G. Sm.), Sacc., III, 798.

Tyslowitz, R. See under Tislowitz, R. Tyson, F. T., preparation of indole, II, 333. Tyson, G. N., jun., and Vivian, R. E., configuration of hydrogenated cupric disalicylaldchyde by means of magnetic measurements, I, 329.

Tytell, A. A. See Gould, B. S., and Sizer, I.W.

Tyzzer, E. E., "interference" in mixed infections of Bartonella and Eperythrozoon in mice, III, 709.

Tzabadze, I. Sec Andronikaschvili, E. Tzanck, A., Sureau, M., and Pittaluga, G., formation of clots and micro-clots in preserved citrated blood, III, 418.

Tzibakova, E. T., oxidative phosphorylation in muscle tissue, III, 689.

See also Belitzer, V. A.

Tziperovitsch, A. S. See under Ziperovitsch, A. S.

Tzukervanik, I., and Jatzimirski, K., alkylation of aromatic hydrocarbons by means of dihalides. I. Condensation of ay-chlorobromopropane with benzene, II, 61.

and Terentieva, I., condensation of aromatic compounds with acids. I. Condensations with hydrocarbons, phenol, and phenetole, II, 293.

See also Nazarova, Z. N., and Sidorova, N. G.

υ.

Ubbelohde, A. R. See Oldham, T. W. H. Uber, F. M., quantum yield for inactivation of tobacco mosaic virus protein,

Hayashi, Teru, and Ells, V. R., ultraviolet transmission by vitelline mem-

brane of hen's egg, III, 793. and Verbrugge, F., photochemistry of thiazole component of vitamin- $B_1$ , III, 116.

and Winters, R., ultra-violet absorption in a series of chloropyrimidines in vapour state and in solution, I, 98.

Uchiyama, H. See Murakami, T. Udintzeva, V. S., and Tschufarov, G. I., kinetics of dissociation of pyrites, I, 421. Udovenko, V. V., viscosity in systems

acetic acid-dimethylaniline and -diethylaniline, I, 407.

Ueberwasser, H. See Erlenmeyer, H. Ueda, Kiiri. See Mayeda, S.

Ueda, Kōzō, diisoquinolyls. I. Synthesis of 4:4'-diisoquinolyl. VII. Formation of 2:3'-diquinolyl by action of selenium on quinoline, II, 337.

Ueda, U. See Oda, R.

Uehara, T., action of bulbocapnine on

extrapyramidal tract, III, 465.

Uchara, Y., luminescent materials. III. Photo-conductivity and molecular vibration structure of fluorescence spectra of zine sulphide crystal phosphors, Î, 321.

Uehling, E. A., density distribution in steady-state diffusion of neutrons, I, 317.

See also Schuchard, E. A.

Ueno, S., and Takase, S., high-pressure reduction of fatty acid amides. II., II, 188.

Takase, S., and Tajima, Y., reduction of fatty acid amides at high pressures. II. Reduction of anilides, II, 161.

Ufford, C. W., interaction of electrons in metals and insulators, I, 290.

Uflacker, H., phytotoxic tests with raw and heated mother's milk in Lupinus albus, III, 540.

Ugami, S., utilisation of non-phosphorylated flavin in adrenalectomised rats, III, 209.

Yamao, Y., Michi, K., Funahashi, S., Emoto, S., and Ichiba, A., adrenal injury and pantothenic acid, III, 778. See also Nakahara, W.

Ugriumov, P. G., comparison of hydrogenation of aliphatic and alicyclic azines. I. Azines of hexahydrobenzaldchyde and heptaldehyde. II. Azines of cyclohexanone and ethyl propyl ketone, IÏ, 320.

Ugriumov, P. S., synthesis of arecoline, II, 154.

Uher, V., [liver composition in infantile diarrhœa in sucklings], III, 446. Uhle, F. C. See Emerson, W. S.

Uhlenbeck, G. E. See Konopinski, E. J. Uhlig, H. H., Carr, N. E., and Schneider, P. H., potentials of iron-chromium alloys containing hydrogen, I, 269. Uhrig, K., and Levin, H., determination of

bromine addition number, II, 156.

Uiberrak, K. Sec Decaneas, D.

Ujsaghy, P., protein metabolism of sucklings, III, 378. Nitrogen and sulphur metabolism of healthy artificially fed sucklings, III, 378. Nitrogen and sulphur metabolism of healthy infants fed with vegetable protein (almond milk), III, 378.

Ullal, V. V., Shah, R. C., and Wheeler, T. S., chromones of the naphthalene series. III. Rapid quantitative transformation at room temperature of o-aroyloxyacetoarones into o-hydroxydiaroylmethanes, II, 21.

Ullmann, M. See Boulin, R.

Ullner, O. E., X-ray analysis of gold-aluminium alloys, I, 79.

Ulrich, H., clinical experiments with mixtures of standard and protaminezinc-insulin, III, 571.

Ulshafer, P. R. See Marker, R. E. Umanski, J. S., X-ray investigation of niobium compounds, I, 452. See also Babitsch, M. M.

Umanski, M. M., equilibrium diagram of the alloy Ag-Sn, I, 461. See also Bunin, S. M.

Umblia, E., systematic separation of anions, I, 57.

Umbreit, W. W. See Vogler, K. G., and Wilson, P. W.

Umemura, H., urinary chloride excretion of lactating women. I. and II., Ill, 449. Effect of vitamin- $B_1$  on chlorine content of human milk, III, 456. Effect of vitamin-B<sub>1</sub> on urine of women with Arakawa-negative milk, III, 595.

Umezu, M., chemistry of glanders bacillus. I. Lipins, III, 229.

and Takematsu, M., change in composition of scrum-protein of cattle caused by hyperimmunisation against rinderpest, III, 146.

See also Motida, I.

Umnova, A. I., secondary and tertiary arylamines containing the furfuryl group. I. Furfurylaniline and furfuryl-

othylamine, II, 50.
Unangst, M. R. See Jensen, A. S.
Underbjerg, G. K. L., effect of avitaminosis-E on reproduction and vitamin-E storage in tissues and milk of goats, III, 686.

Underkofler, L. A. See Dunning, J. W., and Fulmer,  $E.\ I.$ 

Underwood, E. J., composition of bones of sheep of Western Australia, III, 366. See also Anderson, H. D.

Ungar, G., relations between colour and constitution of organic silver salts and their spectral sensitivity distribution, I,

Unghvary, L. von, and Obal, F., monophasic and diphasic action current of

phasic and diplications auricle, III, 841.
Ungnade, H. E., synthesis of dl-"o"-thyronine, II, 362.

See also Huston, R. C.

United States Bureau of Standards, safe handling of radioactive luminous compound, III, 1058.

U.S. Public Health Reports, carbon monoxide: toxicity and potential dangers, III, 656. Benzene: toxicity and potential dangers, III, 791. Hydrogen sulphide; toxicity and potential dangers, III, 791.

Unkovskaja, V., determination of small quantities of uranium by fluorescence

method, I, 221.

Unna, K., pharmacology of a new synthetic antispasmodic, benzyl  $\beta$ -dimethylamino -  $\alpha$ -phenyl -  $\alpha$  - ethylpropionate hydrochloride, III, 128. Toxicity and pharmacology of vitamin-B6 (3-hydroxy-2-methyl-4:5-dihydroxymethylpyridine), III, 221. Pantothenic acid requirement of the rat, III, 286.

and Greslin, J., toxicity of pantothenic

acid, III, 598.

and Sampson, W. L., effect of panto-thenic acid on nutritional achromotrichia, III, 598.

Unwin, J. J., production of waves by sudden release of a spherical distribution of compressed air in the atmosphere, I, 406. Vota, H., and Nishida, K., constituents of

fruit of Rhus semialata, Murr., especially salt-like testing substances, III, 1085.

Uotila, U. U. See Friedgood, H. B. Upcott, M. B. See Darlington, C. D.

Upham, R., and Chaikin, N. W., evaluation of giver function tests in intra- and extra-hepatic jaundice, III, 584.

and Spindler, F., studies on man with new secretagogue meal, III, 581.

Upp, C. W. See McClary, C. F

Uppal, I. S. See Shirolkar, G. V. Upson, R. W. See Shriner, R. L. Upton, J. R., Emery, B. E., and Clark,

R. B., portable emergency [blood-]transfusion unit, III, 965.

Uraguchi, K., perfusion of isolated toad's heart, III, 77.

Uraneck, C. A. See Emerson, W. S. Urazov, G. G., and Sokolova, M. A., chemical method of isolation of tin from its chlorides, I, 267.

Urazovski, S. S., and Polotzki, I. G., chemical effect of ultrasonic waves, I,

See also Rozum, J. S.

Urbach, E., experimental basis of deallergisation therapy, III, 397.

Herrman, M. F., and Gottlier, P. M., cold allergy and cold pathergy, III,

Urbain, A., Thiery, J. P., Nevot, A., and Courtade, R., titration of mallein in vivo and in vitro, III, 936. Urbain, W. M., and Greenwood, D. A.,

hæme pigments of cured meats. II. Application of Van Slyke-Neill manometric gas apparatus to determination of oxygen capacity of dilute hæmo-globin solutions. III. Variation of absorption spectrum of methemoglobin in  $p_{\rm H}$  range 1—8, III, 555.

and Jensen, L. B., hame pigments of cured meats. I. Preparation of nitric oxide-hæmoglobin and stability of compound, III, 555.

Urban, F. Sec White, Harvey L. Urban, J. A. See Weehsler, H. F. Ureehia, C. I., cerebral form of peri-

arteritis nodosa, III, 977. Urguhart, G. G., and Connor, R., n-heptyl-

sulphonylacetic acid, II, 239.

Urry, W. D., radioactive determination of small amounts of uranium, I, 221. Ionisation chamber for counting alphaparticles, I, 306. Age determination of carboniferous basic rocks of Shropshire and Colonsay. I., I, 356. Heat energy from radioactive sources in the earth, I, 490.

and Piggot, C. S., apparatus for deter-

mination of radium, I, 485.

See also Piggot, C. S. Urushibara, Y., configurations of cholesterol oxides, A4-cholestene- and cholestane-3:6-diols, II, 322.

Nambu, K., and Ando, Tosio, addition of hydrogen bromide to cholesteryl bromide and oxygen effect, II, 61.

and Nitta, T., a-cestradiol dimethyl and 17-methyl ether and related compounds, II, 321.

Usanovitsch, M., maximum specific conductivity, I, 85. Salts, I, 173. Nitration mixtures. I., II, 6.

and Abidov, S., nitration mixtures. II. Nitration of tolueno in presence of acetic acid and nitrobenzene, II, 6.

and Gluchov, I., nitration mixtures. III. Nitration of toluene in presence of sulphuric and trichloroacetic acid, II, 6.

and Suschkevitsch, T., nitration mixtures. IV. Nitration of toluene in presence of monochloroacctic acid and

ethyl nitrate, II, 6. Usehakov, M. I. See Martschevski, A. T. Uschakova, A. S. See Feinschmidt, O. I. Usher, B., gastroscopic observations in rosacea, III, 878.

Usher, S. J., and Jasper, H. H., ætiology of Sydenham's chorea: electro-encephalographic studies, III, 498.

Usilton, L. J. See O'Leary, P. A. Usmani, I. H., study of the growth of chemical compounds on a copper single crystal by electron diffraction, I, 403.

Uspenskaja, T.A., and Tschernichov, J.A., application of iodate method to separation and determination of rare elements, I, 221.

Ussery, H. D. See Shear, G. M. Utahashi, K. See Ochiai, E.

Utasiro, S., action of histamine on liver vessels, III, 128.

Utermohlen, W. P., jun., and Hamilton, C. S., derivatives of benzo[h]quinoline [a-naphthoquinoline], II, 107.

Utkin, L. M., molecular compound of dihydroxyacetone and sodium chloride, II, 211.

Uvarova, K. See Chanin, M. N.

Uyei, N., Ito, M., Kitasawa, T., and Chiba, H., gonad-stimulating hormone of pregnant mare serum. I., III, 13.
Uyematsu, T., blood vascular system of

bursa Fabricii in Anas domestica, III,

Uyeo, S., 2:6-dichlorodiphenylene dioxide, II, 332.

## ٧.

Vacek, V., action of vitamin-P [in hæmor-

rhagic states], III, 727.
Vagramjan, N. T., structure of electrodeposited metals as function of rate of passivation. I. Electrodeposition of

silver, I, 470. Vaichulis, J. A., solubility experiments with posterior lobe pituitary powder in

0.25% acetic acid, III, 1008. Vaidhianathan, V. I. See Bajpai, R. R. Vaisberg, R. G. See Plotnikov, V. A. Vaisman, A. See Levaditi, C.

Vajda, G. See Földes, F. Vajie, B., vitamin-C content of paprika, as a protective food in national diet, III,

Vakar, A. B. See Sosedov, N. I. Vakil, R. J., analysis of normal electro-

cardiograms, III, 732.
Vakil, (Miss) V. M. See Desai, R. D.
Vaksberg, N. M., reaction of hypochlorites

with nitrites, I, 279.

Valentine, F. R., jun., and Bergmann, W., products. marine VIII, Sterol sponges; clionasterol and poriferasterol, II, 289.

Valitova, F. G. See Arbuzov, A. E. Valjaschko, N. A., and Blizniukov, V. I., ultra-violet absorption spectra of I. Phenyl-N-phenylpyrazalones. hydrazine. II. Antipyrine, amino-antipyrine, and dimethylaminoantiantipyrine, and dimethylaminoantipyrine. III. 5-Methoxy-1-phenyl-3methyl.5-pyrazolone, I, 320, 446.

and Pivnenko, G. P., reaction of mercuric chloride with basic lead acetate solu-

tions, II, 239.

Valley, G. E., stable isotopes of nickel, I, 313.

Vallois, H. V., ossification of long bones in gorilla, III, 320.

Valter. See under Walter. Vályi-Nagy, T. See Ambrus, J. von.

Van Allen, J. A., and Smith, N. M., jun., absolute number of quanta from bombardment of fluorine with protons, I, 235. Absolute cross-section for photo-disintegration of deuterium by 6.2-Me.v quanta, I, 286.

Van Arendonk, A. M., and Kleiderer, E. C., di-p-aminophenyl sulphone, II, 63. Van Atta,  $\hat{F}$ . A., and Wasley, W. L.,

detection of cadmium, I, 219. Van Brown, D. See Schattenberg, H. J. Vance, J. E., silver chloride electrode in acid-base titrations, I, 131. Pressure regulator for micro-determination of carbon and hydrogen, II, 116.

Vance, J. E., and Dixon, J. K., reaction between nitrous oxide and hydrogen on

alumina, I, 120. Vance, R. W., Snapp, E., and Ivy, A. C., effect of ether-soluble fraction of bile on hepatic glycogen storage, III, 604.

Vandaveer, R. L., standard solutions, I, 220, 482.

Van Dellen, T. R. See Miller, J. R.,

and Scupham, G. W.
Vandenbelt, J. M. See Emmett, A. D.
Vanderlaan, J. E., Vanderlaan, W. P., and Logan, M. A., effect of administering thyrotropic hormone with and without iodine on thyroid tissue metabolism, III,

Vanderlaan, W. P. See Vanderlaan, J. E.Van der Sar, A. See under Sar, A. van der. Van de Velde, J. See De Waele, H. Van Duyne, F. O., determination in vitro

of riboflavin in tissues, III, 597.

Lanford, C. S., Toepfer, E. W., and Sherman, H. C., life-time experiments on optimum calcium intake, III, 775. and Sherman, H. C., riboflavin contents of tissues as stabilised in adults at liberal levels of intake, III, 777.

Van Dyke, H. B. See Chow, B. F., Coffin, H. C., Greep, R. O., and Walker, H.A.

Van Ess, (Miss) M. W. See Gilman, H.

Van Gelder, D. W. See Fisher, S.

Van Hook, A., activity coefficients of silver and chromate ions in gelatin media, I,

Van Huysen, G. See Hodge, H. C. Van Lanen, J. M., Baldwin, I. L., and Riker, A. J., attenuation of cell-stimulating bacteria by specific amino-acids, III, 707.

Van Liere, E. J., and Vaughan, P. E., influence of anoxia on absorption of sodium chloride and sodium sulphate from small intestine, III, 14. Basal secretion of Pavlov pouch dogs as influenced by oxygen want, III, 877.

See also Andes, J. E., Emerson, G. A., Hewitt, W. F., jun., Northup, D. W., and Vaughan, P. E.

Van Meeteren, A. See under Meeteren, A. van.

Van Meter, C. T., Bianculli, J. A., and Lowy, A., 4-aminodiphenyl-4'-sulphonamide and [its] derivatives. I., II, 220. and Lowy, A., 4-aminodiphenyl-4'sulphonamide and derivatives. II., II,  $24\hat{8}.$ 

Van Niel, C. B., photosynthesis in bacteria, III, 140.

and Anderson, E. H., occurrence of fermentative assimilation, III, 472.

Vannotti, A., porphyrins in biology and clinic, III, 163. Pernicious anæmia and hypothyroidism, III, 244. Treatment of hypochromic anæmia, III, 325. Influence of drugs on myocardial ischæmia, III, 334.

Van Ordstrand, H. S. See Collins, E. N.Vanossi, R., investigation of ferric ion by means of thioeyanate, I, 306.

Van Prohaska, J. See Brunschwig, A. Vanseheidt, A. A., Naumova, Z. K., and Melnikova, E. P., synthesis of methylenediureide and its polymeride-homologues, II, 317.

Van Slyke, C. J., Wolcott, R. R., and Mahoney, J. F., chemotherapy of gonorrhea, III, 460.

Van Slyke, D. D., and Folch, J., manometric carbon determination, II, 24.

Van Valkenburgh, H. B., and Crawford, T. C., detection of metals in minerals and ores; ammonium hypophosphite fusion method, I, 430.

Van Vleck, J. H., Zeeman effect of chrome alum, I, 1. Theory of antiferromagnetism, I, 102. Energy exchange between lattice oscillators, I, 323. Paramagnetic relaxation and equilibrium of lattice oscillators, I, 323. See also Finkelstein, R.

Van Voorhis, C. C., and Shenstone, A. G., characteristics of hollow-cathode dis-

charge tubes, I, 306. Van Voorhis, S. N. See Hodge, H. C.,

and Manly, M. L.

Van Winkle, W., jun., oral and intramuscular ineffectiveness of "hypotensive" extracts, III, 734. Toxicity and actions of trimethylene glycol, III, 917. Quantitative gastro-intestinal absorption and renal exerction of propylene glycol,

Vanzart, F. R., Osterberg, A. E., Alvarez, W. C., Judd, E. S., and Rivers, A. B. pepsin in human gastric juice. V. Prognostic value, III, 199.

Osterberg, A. E., Alvarez, W. C., and Rivers, A. B., pepsin in human gastric juice. IV. Influence of gastric and duodenal disease, III, 199.

Varadachari, P. S., secondary electron emission of nickel at the Curie point,

I, 67.

Várady, J., and Jahn, F., action of acetylsalicylic acid on intraocular pressure,

and Szántó, G., nitrite content of sputum, gastric juice, and urine, III, 619.

Varco, R. L., and Visscher, M. B., elimination of dyes by gastric mucosa, III, 765. Varden, L. E., sharpness considerations in making scientific illustrations, III, 820.

Vardiman, P. H. Sec Bolin, F. M. Varfolomeeva, E. K. Sec Berezovskaja,

F. I.Vargaftik, N. B. See Timroth, D. L.

Vargas, L., jun. See Lipschütz, A.
Varney, P. L. See Wynd, F. L.
Varney, R. F. See Evans, J. S.
Varschamov, L. A., therapeutic action of

anti-reticular cytotoxic serum in typhoid fever and pulmonary abscess, III, 231.

Varschavski, S. L., structure of additive compounds of metallic halides and unsaturated hydrocarbons, II, 157.

Vartiainen, I., and Marble, A., effect of subcutaneous administration of protamine (salmine) to rabbits and mice, III, 868.

Vasilenko, V. C., and Maizlisch, R. M., variations in excretion of prolan with

age, III, 97.

Vasilevskaja, O. V., preparation of m-carboxybenzenesulphondichloroamide and of carboxybenzene-3:5-bis(sulphondichloroamide) from benzoic acid, II, 65.

Vasiunina, N. A. See Kuznetzov, V. I. Vass, C. C. N. See Harper, A. A. Vassel, B. See Crossley, M. L.

Vassiliev, I. M., vernalisation, III, 398. Vassiliev, S. S., equation of state of gases.

II., I, 459. Vassiliev, V., and Sirkin, J. K., dipole moments of nitro- and amino-derivatives of benzene and naphthalene, I, 400.

Vassos, G. A., jun., phagocytosis of collagen [in gastric ulcer], III, 200.

Vastine, J. H., jun., and Sampson, D. A., subcutaneous urography, III, 769.

Vasudeva, R. S., malformation of cotton leaves, III, 941.

Vaughan, J. See Dubash, J. Vaughan, P. E., and Van Liere, E. J., effect of noise on gastric secretion in Pavlov dogs, III, 766.

See also Andes, J. E., and Van Liere,

Vaughan, W. E. See Rust, F. F.

Vauthey, M., vitamin-C metabolism: saturation test, III, 599.

Vavra, R., and Kidery, J., adsorption of strychnine by erythrocytes, III, 221.

Vazquez-Lopez, E., Golgi apparatus as indicator of secretory activity in pancreatic islet cells, III, 104.

Veal, J. R., and Klepser, R. G., treatment of infected wounds by local application of powdered sulphanilamide and sulphanilamide-allantoin ointment, III, 527. See also Reynolds, C.

Veasey, C. A., vitamin-B in ophthalmology, III, 501.

Veazie, L., and Meyer, K. F., serological classification of Brucella group, III, 141.

Vedder, H. See Burdick, H. O.
Veen, A. G. van, rice problems: white silver-fleece rice and "parboiling" of rice, III, 284. Determination protein in blood of nutritional ædema patients, III, 728.

and Dhanoedibroto, R. S., nicotinic acid determinations in blood of patients with nutritional cedemata in Mid-

Java, III, 285.

See also Pannekoek-Westenburg, S. J. E. Veeraraghaviah, J. See Seshadri, T. R. Vehrs, H. See David, N. A.

Veksler, V. I., and Dobrotin, secondary mesons, I, 288. Slow mesotrons in cosmic radiation, I, 288. Secondary slow mesotrons, I, 361.

See also Temnikova, T. I. Venable, D. R. See Nelson, R. L.

Vendl, M., determination of volume percentage of mineral components by means of measurement of light reflected from a polished section, I, 63.

Vener, H. I., and Bower, A. G., treatment of

tetanus, III, 790. Venkataraman, K. See Shirolkar, G. V. Venkataraman, P. R. See Anantakrishnan, C. P.

Venkataraman, R., olefine-bromine reaction. III. Influence of different catalysts on reaction, I, 340. See also Anantakrishnan, S. V.

Venkatesha, S., fusc spectrum of aluminium,

Venkateswarlu, K., relative intensities of Stokes and anti-Stokes Raman lines in crystals, I, 240. Raman spectrum of sulphur, I, 447.

Venkateswarlu, V. Sec Rangaswami, S.,

and Seshadri, T. R. Vennesland, B., and Hanke, M. E., oxidation-reduction potential requirements of a non-spore-forming, obligate anaërobe, III, 1067.

See also Ball, E. G., Conant, J. B., Green, D. E., and Solomon, A. K.
Venning, E. H., and Browne, J. S. L.,
metabolism of crystalling progesterone,

Venning, E. W., mounting embryological museum specimens with glass wool, III, 321.

Venning, J. S. L. See Pattee, C. J.Venzke, C. E., histology of teat and gland cistern of bovine mammary gland, III, 68. Verbrugge, F. See Uber, F. M. Verge, J. See Brocq-Rousseu, D.

Verhaar, G., solubility of sucrose, I, 36. Verhaart, IV. J. C., lead encephalopathy

simulating diffuse sclerosis in a Chinese infant, III, 1055.

Verhoeff, F. H., occlusion hypertropia, III,

Verlot, M. See Michelsen, J. Verma, G. S. See Das Gupta, S. N. Verma, M. R. See Kapur, P. L.

Vermillion (Miss) G., and Hauser, C. R., acylation of aldoximes. V. Isomerisations in benzoylation of syn- and anti-aldoximes in pyridine, II, 226. See also Hauser, C. R.

Vermillion, H. E., Werbel, B., Saylor, J. H., and Gross, P. M., solubility studies. VI. Solubility of nitrobenzene in deuterium water and in ordinary water, I, 332.

Vernidub, M. F., morphology and physiology of pike-perch (Lucioperca lucioperca. L.) during period of so-called IV and V

maturity stages, III, 449. Vernon, A. A., Luder, W. F., and Giella, M., solubility effect in solvents of low dielectric constant. I. Solubility of tetrabutylammonium iodide in benzene in presence of tetrabutylammonium pierate

and nitrate, I, 253.

Vernon, M. D. See Craik, K. J. W.

Vernov, S. N., cascade theory and experimental data, I, 288.

Vero, F., and Genovese, S., occupational dermatitis in eigar makers due to contact with tobacco leaves, III, 698.

Veronese, A. Sec Travia, L.

Verrier, M. L., ocular reduction in arthropods, III, 667.

Verrill, K.J. See Jones, E.R.H.Ver Steeg, K., sphalerite and galena in

sedimentary rocks in Ohio, I, 62.
Vertán, E., thyroid gland extracts in goitre, III, 436.

Verweel, H. J., and MacGillavry, C. H., crystal structure of succinic acid, I, 326.

Verwey, W. F., and Frobisher, M., jun., electrophoresis of staphylococci. Factors affecting electrophoretic velocity. II. Correlation between electrophoretic velocity and biological characteristics, III, 309.

Verzár, F., action of adrenal cortex hormone in Addison's disease, III, 349. See also Pulver, R.

Vesell, H., critical rates in ventricular conduction, unstable bundle branch block, III, 972.

See also Touroff, A. S. W.

Veselovski, V. I., photogalvanic processes on a silver electrode, I, 417.

Vest, S. A., Drew, J. E., and Langworthy, O. R., comparative effects of testosterone derivatives in monkey, III, 354.

Vial, J. See Hermann, H.

Vianna Dias, M., and Moussatché, H., production of cortical epilepsy by strychnine and electric stimuli in different species, III, 431.

See also De Almeida, M.O.

Viciu, E. See Sparchez, T. Vickery, H. B., Smith, E. L., Hubbell, R. B., and Nolan, L. S., cucurbit seedglobulins. I. Amino-acids present and

nutritive value, III, 945. Smith, E. L., and Nolan, L. S., substitute

for edestin, III, 151. See also Pucher, G. W.

Victor, E. See Broda, E. E.

Victor, J. See Weeks, D. M.

Vida, B. L. D., and Dyke, S. C., absorption of isoagglutinins from pooled plasma serum, III, 643. Blood picture in trichiniasis, III, 966.

Viehover, A., Daphnia methods, III, 223. Vieu-Bonnafous, J. See Mercier, F.

Vigfusson, V. A., equipment for double variation method of refractive index determination. I. Improved stage cell. II. Variable temperature control apparatus, I, 347.

Vigue, C. See Katzenelbogen, S. Vilenski, V. A., Kastorskaja, T. L., and Stratschitzki, K. I., disaggregation of invertase in urea solutions, III, 706.

and Korolev, A. J., solvation of proteins in aqueous solutions of weak acids and bases. I. Interaction of casein with aqueous solutions of acetic, lactic, and citric acids, I, 44.

and Pavlova, V. A., solvation of prolamines in alcohol-water mixtures, I,

Vilgusevitsch, J. P., qualitative analysis for cations, without the use of hydrogen sulphide, I, 387.

Villars, R., effect of X-irradiation on colchicine-treated roots, III, 941.

Villedieu, (Mlle.). See Dodel, P. Villela, E., histology of human yellow fever when death is delayed, III, 935.

Vilnianski, J. E., and Golubtschenko, N. P., dehydration of molten carnallite, I, 415.

Vilter, V. See Bureau, V. Vinal, G. W., and Brickwedde, L. H., metastability of cadmium sulphate and its effect on e.m.f. of saturated standard cells, I, 417.

Vincent, H. B. See Sawyer, R. A.

Vincent, J. M., effective and ineffective association between root-nodule bacteria and the host plant, III, 1083.

Vincent, R. S., measurement of tension in liquid by means of a metal bellows, I,

Vincent, W. B. See Hoard, J. L. Vinograd, J. R., and McBain, J. W., diffusion of electrolytes and of ions in their mixtures, I, 407. See also McBain, J. W.

Vinogradova, E. See Feofilaktov, V. V. Vinokurov, S. I., and Sidorova, O. A., dehydrogenating power of liver; reduction of dehydroascorbic acid in cooled animals, III, 680.

Vinson, P. P., English literature on diseases of esophagus for 1940, III, 1013.

Vinti, J. P., isotope shift in boron, I, 137. Theorem on nuclear motion in atomic spectra, I, 137.

Vintinner, F. J., dermatitis venenata resulting from contact with an aqueous solution of ethyl mercury phosphate, III, 299.

Vinton, D. See Sears, H. J.

Virasoro, E. See Berraz, G.

Virtanen, A. I., Karström, H., and Kahra, L., activator stimulating lactic acid fermentation, III, 708.

Laine, T., and Toivonen, T., determination of amino-acids with ninhydrin, II, 387

Virtue, R. W., and Doster-Virtue, M. E., production of taurocholic acid in the V. Methionine sulphoxide, III,

See also Doster-Virtue, M. E.

Vischepan, E. D., transamination. XV. Influence of specific enzyme poisons and other chemical agents on activity of glutamic aminopherase, III, 704.

Vischer, A., ovalocytosis, III, 323. Vischniakov, M. N. See Berg, J. N.
Visscher, M. B. See Kaplan, J. J.,
Kubicek, W. G., and Varco, R. L.
Viswanath, C. V. See Prasad, M.

Vitkin, S. F., motor functions of stomach after gastrectomy, III, 102.

Vivian, J. E. Sec Whitney, R. P. Vivian, R. E. Sec Tyson, G. N., jun. Vladesco, R. Sec Bertrand, G.

Vlasiuk, P. A., effect of manganese on, and significance of manganese in, utilisation of ammonia- and nitrate-nitrogen by

sugar beet, III, 399. and Gornaja, V. J., determination of manganese in plants, III, 405.

Vlassov, A. See Fursov, V.

Voegtlin, C., cancer research, III, 281. Cancer of stomach, III, 591.

See also Chalkley, H. W. Vogel, A. I. See Cowan, D. M.

Vogel, H. A. See Schuette, H. A. Voges, G. See Mellinghoff, K. Vogler, K. G., and Umbreit, W. IV., sulphur oxidation by Thiobacillus thio-oxidans, III, 1066.

Vogt, A., action of vitamin-C on chronic leukæmia, III, 72. Genetic linkage of macula with both iris and ocular pigment in man, III, 569.

Vogt, E. C., craniolacunia (formerly called

Lückenschädel), III, 638.

Vogt, H., disturbances of nutrition in sucklings, III, 370. Immunity of man against tuberculosis, III, 395. Vogt, K. E. Seo Kestermann, E.

Vogt, M., constriction of renal vessels in frog (Rana esculenta) and its effect on systemic blood pressure, III, 421.

Vogt-Muller, P., therapeutic uses of vitamin-E, III, 377.

Voinar, A. O., and Babkin, M. P., oxalic acid metabolism in animal organism and reliability of its determination, III, 691.

Volarovitsch, M. P., applications of high pressures in geological and geophysical research, I, 308. Influence of pressures up to 1000 kg. per sq. cm. on viscosity of highly viscous liquids (lubricating oils, etc.), I, 407.

and Stepanenko, N. N., determination of dipole moments of fatty acids in solution by Drude's second method, I, 251

Vold, M. J., liquid-crystalline, waxy, and crystalline phases in binary mixtures of pure anhydrous soaps, I, 168. Phase behaviour of dodecanesulphonic acid and of its alkali salts with water, 1, 337.

Macomber, M., and Vold, R. D., stable phases occurring between true crystal and true liquid for single pure anhydrous soaps, I, 168.

See also McBain, J. W. Vold, R. D., Leggett, C. W., and McBain, J. W., systems of sodium palmitate in organic liquids, I, 83. and McBain, J. W., solubility curve of

sodium deoxycholate in water, I, 337. Reivere, R., and McBain, J. W., phaserule study of system sodium myristatewater, I, 337.

See also McBain, J. W., Marton, L., and Vold, M.J.

Voldeng, K. E., recovery following streptococcal septicæmia treated with neoprontosil, III, 905.

Volfson, S. I., Michalev, P. F., and Zacharotschkin, I. D., mechanism of solution of aluminium in aqueous or dry phenol, I, 213.

Volgunov, G. P., action of amylase and invertase on air-dry substrates of different degrees of humidity, III, 623.

Volhard, E., and Basler, R., rheumatic liver cirrhosis, III, 14.

Volhard, F., blood pressure and kidney, III, 81.

Volini, I. F., Levitt, R. O., and O'Neill, H. B., sulphathiazole in treatment of pneumococcus pneumonia, III, 292. Volk, M. C. See Altschule, M. D., and

Waller, J. V.Volkenstein, M. V. See Gantmacher,

A. R., and Prileshaeva, E.

Volkenzon, D. V. See Goldstein, B. I. Volkmann, J. See Stevens, S. S.

Volkov, E., and Razgon, R., denaturation of soya glycinin. I. Heat-denaturation, III, 300.

Volkov, V. V., effect of anti-reticular cytotoxic serum on immunity in experimental coli infection, III, 229.

Volkova, A. A. See Jerofeev, B. V. Volkova, V. A. See Ravitsch, G. B.

Volkova, Z. V., fixation of mineral particles in surface of air bubbles in flotation, 1, 465.

Volland, W., idiopathic form of intracerebral vascular calcification with extrapyramidal lesions, III, 987.

Vollmer, E. P., Gordon, A. S., Levenstein, I., and Charipper, H. A., effects of sex and gonadotropic hormones on red cell counts of rats, III, 642.

Vollmer, H., biological action of coloured light, III, 133. Distribution of vitamin-D in brain after repeated administration of massive doses, III, 376.

Vollrath, R. E., device for starting swinging of a balance, I, 486.

Volman, D. H., photochemistry of aqueous solution of acetamide, I, 383.

Volnov, J. N., and Dolgov, B. N., condensation of SiCl<sub>4</sub> with dihydric phenols, II, 40.

and Reutt, A., unsaturated silico-organic compounds; preparation of hexaacetylenylsiloxan and triethoxyphenylacetylenylsilan, II, 284.

Volnova, V. See Ravitsch, G.

Volodtschenkova, A. I., boron in Chibiny apatites, I, 308.
Volova, L. M., equilibrium of co-existing

liquid and gas phases in the binary system methane-ethylene, I, 415.

Volwiler, E. H. See Moore, M. B. Vonder Heide, E. C. See Sharp, E. A.

Vonderlehr, R. A., treatment of syphilis, III, 529. Rôle of technician in campaign against syphilis, III, 629. Sec also O'Leary, P.A.

Vondrak, J., device for accurate delivery of small amounts of fluid, I, 91.

Vonkennel, J., and Tilling, T., determination of iron in cerebrospinal fluid, III,

Vonsovski, S. V., energy of magnetic anisotropy and critical field of a ferromagnetic cooled in a magnetic field, I, 157. Technical magnetisation curve in ferromagnetic single crystals; anisotropy of coercive force, I, 157. Resistance of metals at low temperatures, I, 197. Temperature-dependence of magnetic anisotropy of cobalt single crystals, I, Vora, V. C., Barve, P. M., and Desai, B. N., dialysis in study of colloids. VII. Colloidal zinc ferrocyanide, I,

Sec also Barve, P. M.

Vorakso, C. I. See Mischtschenko, K. P. Voris, LeR., Marey, L. F., Thacker, E. J., and Wainio, W. W., digestible nutrients of feeding stuffs for domestic rabbit, III, 773.

Vorisek, E. A., ocular hypertelorism of Greig, III, 861.

Vorobiev, A. A., electrical breakdown of insulating crystals, I, 454.

Vorobiev, A. L., vanadium and nickel in coal from upper Silurian strata of Alai and Turkestan mountains, I, 232.

Vorobiev, N. K., kinetics of reactions in non-aqueous solutions, I, 475.

Voroshcov, N. N., and Alexandrov, A. P., alkaline fusion. II. Reaction between anthraquinone and alkali, II, 46.

Kozlov, V. V., Aristov, B. A., Barischev, A. I., and Fedulov, M. F., naphthalene series. IX. Rearrangement of 1-naphthylamine-4-sulphonates to 1-naph-thylamine-2-sulphonates, II, 39. and Schkitin, V. P., reductive ammono-

lysis of anthraquinone, II, 39.

Voroshcov, N. N., jun., nitro-derivatives of diphenyl ether-4-sulphonic acid, II, 40.

and Bogusevitsch, L. N., isocoumarin derivatives. I. Synthesis of isocoumarin-3-carboxylie acid, II, 372.

Vorwald, A. J., dust and pulmonary disease, III, 791.

Vosburgh, W. C., and Cooper, G. R., complex ions. I. Spectrophotometric identification of complex ions in solution,

Vose, S. N. See Meaker, S. R.

Voskresenskaja, N. K., and Rutzkov, A. P., specific heat of solutions of monopotassium and -ammonium phosphate, , 250. Specific heat in ternary system KH2PO4-NH4H2PO4-H2O, 1, 250.

Voss, H., detection of inactive [plant] growth-substance: an antagonistic growth-substance and its significance in regulation of growth, III, 403.

Voss, H. E. See Hagedorn, A. Vossschulte, K. See Schwarzhoff, E. Voth, A. C. See Corwin, W. W. Wotinov, A. P. See Koton, M. M. Wotschal, A. E., studying water transport

in stems of grain plants, III, 483. Continuous determination of rate of transpiration in plants, III, 539. Natural conditions reproduced in a chamber for studying gas metabolism in plants, III,

Vryonis, G., effect of intravenous administration of liver extract in patients with sickle-cell anæmia: an unusual response. III, 828.

Vuks, M., dispersion spectra of crystalline and amorphous benzophenone, I, 397.

Vulfson, K., velocity of sound in quartz, I,

Vulfson, N. S., and Schemjakin, M. M., condensation of bromoacctaldehyde with malonic acid, II, 160.

Vyas, V. A., Bokil, K. V., and Nargund, K. S., synthetic anthelmintics. I. a-Substituted y-butyrolactones, II, 98.

Methoxytolylsuccinic acids, II, 100. Vyronis, G., blood studies in malaria; genesis of blood cells in relation to treatment with quinine, III, 243.

Waaler, E. See Jansen, J.

Wachholder, K., Holz, A., and Briem, H. J., paradontosis and vitamin-C, III, 119.

Wachtel, L. W., Hove, E., Elvehjem, C. A. and Hart, E. B., blood-uric acid and liver-uricase of zinc-deficient rats on various diets, III, 517.

Wachter, G., pitressin plus water drinking in diagnosis of epilepsy in children, III,

Wacker, T., gold treatment in pulmonary tuberculosis, III, 293.

Wada, M., Seo, M., and Abe, K., effect of injury of lobulus posterior medianus of cerebellum on blood pressure, bloodsugar, and adrenaline secretion in nonanæsthetised dogs, III, 855.

Waddell, W. W., and Lawson, G. McL., hæmorrhagic diathesis of newborn, III,

Waddington, C. H., physiochemical nature of chromosomes and gene, III, 67.

Waddy, G. See Brodsky, L.

Wade, A., geological exploration for petroleum, I, 308.

Wade, H. W. See Hess, J. H.

Wade, L. J., and Stevenson, L. D., necrosis of bone marrow with fat embolism in sickle cell anæmia, III, 322.

Wade, N. J., and Haselwood, L. A., effect of removal of ovaries and adrenals on opening of vagina in rat, III, 577.

Wadsworth, A. B., serodiagnosis of syphilis, III, 805.

Wadsworth, G. H., and Brown, C. H., serum reaction complicated by acute carditis, III, 397.

Waelsch, H., excretion of ketonic acids, III,

and Rittenberg, D., glutathione. I. Metabolism studied with isotopic

glycine, III, 686. Sperry, W. M., and Stoyanoff, V. A., influence of growth and myelination on deposition and metabolism of lipins in brain, III, 989.

See also Rittenberg, D.

Wätjen, J., clinic and pathological anatomy of poison gas injuries, III, 84.

Wagenen, G. van, and Catchpole, H. R., hysterectomy at parturition and ovarian function in monkey, III, 874. and Folley, S. J., effect of androgens on mammary gland of female rhesus monkoys, III, 198.

Wagenen, W. P. van, and Herren, R. Y., surgical division of commissural pathways in corpus callosum: relation to spread of an epileptic attack, III, 343.

Wagener, H. P., riboflavin and keratitis, III, 433.

Wager, H. G., respiration and carbon assimilation rates of Arctic plants as related to temperature, III, 481. Waghorne, J. H. See Le Caine, H.

Wagner, E. A., and Jones, D. V., cutaneous application of vitamin-D in treatment of

rickets, III, 779.

Wagner, E. C., titration of ammonia in presence of boric acid in macro-, emimicro-, and micro-Kjeldahl procedures, using methyl-red indicator and the colour-matching end-point, I, 126. See also Lincoln, R. M., and Miller, T. R.

Wagner, G. H., and Eversole, W. G., stroboscope and circuit for charging condensers to high direct current potentials, I, 178.

Wagner, H., treatment of rickets with irradiated vitamin- $D_3$ , III, 376.

Wagner, J. A. See Strumia, M. M.
Wagner, J. R., Axelrod, A. E., Lipton,
M. A., and Elvehjem, C. A., rat assay method for determination of riboflavin, III, 117.

Wagner, R. B. See Marker, R. E., and Whitmore, F. C.

Wagoner, G. Seo Rosenthal, O. Wagoner, S. C., and Hunting, W. F., sulphathiazole and sulphapyridine in pneumonia, III, 459.

Wagreich, H. Abrams, A., and Harrow, B., rate of detoxication of benzoic acid by glycuronic acid in man, III,

Bernstein, A., Pader, M., and Harrow, B., detoxication of borneol by glycuronic acid in man, III, 1056.

Wagtendonk, W.J. van. See Taylor, C. V.Wahl, W., radioactive transition series, I, 141. Chemical applications of massspectrograph, I, 179. Radioactive series, I, 359.

Wahlin, J. G. See Day, P. L. Wainio, W. W. See Voris, LeR. Wainman, L. M. See Bonser, G. M.

Wainwright, C., X-ray camera for materials

of large grain size, I, 485. Waisbrot, S. W. See Wolfrom, M. L.

Waisman, H. A., and Elvehjem, C. A., multiple deficiencies in modified Goldberger diet as demonstrated with chicks, III, 286. Chemical determination of nicotinic acid and vitamin-B<sub>5</sub>, III, 597. Waisman, M., and Kepler, E. J., endocrine

factors in alopecia areata, III, 1001.

Waite, R. See Neale, S. M. Waits, W. J. See Cummins, H. Wakatuki, T., angular distribution of fast neutrons scattered by atoms. Ill, I, 440.

Wakeley, C. P. G., treatment of burns, III,

Wakeman, A.J. See Pucher, G.W.Wakerlin, G. E., and Gaines, W., effect of

various agents on blood pressure of renal hypertensivo dogs, III, 845. and Johnson, C. A., reduction in blood

pressure of renal hypertensive dogs by hog renin, III, 562.

Wakim, K. G., intrahepatic circulation of blood in intact animal, III, 652.

Waksman, S. A., and Woodruff, H. B., survival of bacteria added to soil and resultant modification of soil population, III, 708. Bacteriostatic and bactericidal substances produced by a soil actinomyces, III, 798.

Wald, G. See Steven, D.

Waldbott, G. L., and Ascher, M. S., rust and smut, major causes of respiratory allergy, III, 147.

Waldman, E. See Meltsner, M.

Waldmann, H., and Back, S., synthesis of ms.[4:5]-benzacridan, II, 376.

Waldschmidt, IV. A., flow structure in the Lubbock meteorite, Lubbock, Texas, I, 351.

Walker, A. See Silverthorne, N.

Walker, A. E. See Marcovich, A. W. Walker, A. W. See Kendall, A. I. Walker, B. S., amperometric measurements

of potency of catalase, III, 795. and Fitz, R., blood-iron, III, 71. Walker, D. W., and Murphy, J. P., sickle-

cell anæmia complicated by acute rheumatic heart disease and massive cerebral hæmorrhage, III, 959. Walker, E. See Maguigan, W. H.

Walker, H. Sce De Diesbach, H. Walker, H. A., and Van Dyke, H. B. toxicity of sulphathiazole and related compounds, III, 462. Walker, H. N. See Altmann, G. O.

Walker, J. M., comparison of digoxin with k-strophanthoside, III, 127.

Walker, J. P. S., case of blue sclerotics, III,

Walker, L. R. See Ferguson, A. J.Walker, M. S. See Kertesz, Z. I.

Walker, R. D. See Sheppard, S Walker, R. W. See Ruh, E. L. See Sheppard, S. E.

Walker, R. Y., superiority of binocular over monocular vision in depth perception in respect to vertical or horizontal position of object, III, 90.

Walker, S., and Auten, H. L., industrial injuries to the eye, III, 500.

Walkley, A., discharge of zinc ions at the dropping mercury cathode, I, 471. Walkley, J., protein synthesis in mature

and senescent leaves of barley, III, 233. Wall, F. T., structure of vinyl co-polymerides, I, 365. Removal of substituents from vinyl polymerides. II.,

and Holley, C. E., jun., separation by thermal diffusion of mixtures of gases having same molecular weight, I, 123.

Wall, L. M. See Donelson, E. G.Wall, M. J. See Smadel, J. E. Wallace, A. B. See Robson, J. M.

Wallace, D. A., and Hansen, H. L., chemistry in dental science, III, 275.

Wallace, E. W., effect of acetylcholine derivatives and other drugs on auricular

fibrillation in dogs, III, 1050.

Wallace, G. B., and Brodie, B. B., source of cerebrospinal fluid; distribution of bromide and iodide throughout central nervous system, III, 256. Cation shifts [in blood and cerebrospinal fluid] following magnesium and calcium injections, III, 996.

Wallace, J. M., jun., and Copenhaver, J. E. anhydrides of normal aliphatic saturated

monobasic acids, II, 159.

Wallace, L. B. See Moor, H. D. Wallace, S. A. See Ashworth, C. T.

Wallace, W. E., and Robinson, A. L., heats of dilution, relative molal heat contents, and heat capacities of aqueous sodium sulphate solutions, I, 267.

Wallace, IV. S., intestine in radiation sickness, III, 532. Radiation sickness. II. [Effect of vitamin- $B_1$  and -C], III, 793.

Wallbaum, H. J. See Laves, F.
Wallenstein, W. L., medium for cultivation of tubercle bacilli, III, 933.

Waller, H., Aschaffenburg, R., and Grant, M. W., viscosity, protein distribution, and "gold number" of antenatal and postnatal secretions of human mammary gland, III, 510.

Waller, J. V., Blumgart, H. L., and Volk, M. C., blood in congestive heart failure,

III, 490.

Waller, M. D., solid carbon dioxide as exciter of vibrations, I, 456.

Waller, R. C. See Spedding, F. H.

Wallerstein, J. S., growth substances; nature and inter-relationships of bios constituents, III, 707.

and Schade, A. L., yeast. II. Origin and relation to other organisms, III,

Wallgren, A., systemic reticulo-endothelial granuloma, III, 213.

Wallingford, V. H., Homeyer, A. H., and Jones, D. M., alkyl carbonates in synthetic chemistry. I. Condensation with organic esters; synthesis of malonic esters. II. Condensation with ketones; synthesis of  $\beta$ -keto-esters, II, 349, 350.

Wallis, E. S. See Bernstein, S., and Lane,

Walsh, F. B. See Emerson, K., jun. Walsh, M. N., changes in intracranial

volume on ascent to high altitudes and descent as in diving, III, 664.

and Boothby, W. M., demonstration of air bubbles in cerebrospinal fluid under atmospheric pressure in low-pressure chamber, III, 656.

Walshe, F. R. M., actiology of polyneuritis, II1, 345.

Walter, A. K. Sce Sinelnikov, K. D.

Walter, H. See Holtz, P.

Walter, J., and Eyring, H., partition function for normal liquids, I, 293.

Walter, M., circulatory tests and prognosis of thoracic operations in pulmonary tuberculosis, III, 425.

Walter, U., action of various drugs on blood

alcohol curve, III, 381.

Walter, W. G., and Hucker, G. J., bacterio-logical examination of flat surfaces, III, 625. Contact plate method to determine microbial contamination on flat surfaces, III, 1065. See also Hemphill, R. E.

Walters, G. C., and Pearce, D. IV., potential of Yb"-Yb" electrode, I, 116.

Walters, J. D., and Stern, E. C., dermatitis from dextrins used as stamp adhesive, III, 790.

Walters, W. See Barker, N. W., and Kennedy, R. L. J. Walters, W. D. See Herr, D. S.

Walther, IV. IV., estimating proteins in plasma or serum, III, 968.

Walti, R. See Treadwell, W. D. Walton, A. See Chang, M. C.

Walton, J. H. See Peterson, R. W. Walton, R. P. See Powell, G.

Walzer, M. See Gray, I., and Harten, M. Wan, S. W., critical temperature from index of refraction, I, 364.

Wang, C. W. See Tang, T. H.

Wang, C. Y., use of micro-sedimentation test in tuberculous children, III, 959. and Khoo, F. Y., hæmolytic anæmia with erythroblastæmia: 3 eases in

Chinese infants, III, 960. Wang, G. H., and Lu, T. W., development of swimming and righting reflexes in frog (Rana güntheri), III, 984.

Wang, J. S. See Tang, P.S.Wang, S. C., and Clark, G., decussation of sacral autonomic pathways of bladder from hypothalamus, III, 180.

Clark, G., Dey, F. L., and Ranson, S. W., gastro-intestinal motility following stimulation of hypothalamus, III,

and Ranson, S. IV., rôle of hypothalamus and preoptic region in regulation of heart rate, III, 855.

Wang, T. See Smith, A. M. Wang, T. H., and Lin, Y. T., analysis and study of hot spring-water in Foochow,

Wang, Y., and T'ien, S. P., metabolism of sterols. I. Excretion of pregnanediol glycuronide in urine of Chinese pregnant women, III, 673.

Wang, Y. L. See Kodicek, E. Wangensteen, O. H. See McQuarrie, L. Wanke, R., chronic mastitis and ovarian hormones, III, 100.

Wannamaker, W.H. See Harrison, T.R. Wannier, G.H. See Kramers, H.A.

Waravdekar, W. S. See Desai, R. D.
Ward, A. F. H., influence of solvent of formation of micelles in colloidal electrolytes. I. Electrical conductivities of sodium dodecyl sulphate in ethyl alcohol-water mixtures, 1, 82.

Ward, C. B. See Harris, Milo.

Ward, C. P., paraplegia due to measles encephalomyelitis, III, 665.

Ward, J. McF. See Liebow, A. A. Ward, J. W. See Clark, S. L.

Ward, S. M. See Hoagland, C. L., and Smadel, J. E.

Wardlaw, H. S. H., exchange of energy between man and his environment, III,

Wardle, R. A. See Green, N. K.

Ware, L. L. See King, H. Warga, M. See Saier, E.

Warhurst, E. See Baxendale, J. H. Waring, C. E., thermal decomposition of gaseous silicon tetraethyl and silicon

tetrapropyl, I, 50. Hyman, H. H., and Steingiser, S., magneto-optic rotation. III. Carbon disulphide in substituted benzenes, I, 364.

Waring, J. I., oxyuris infestation, III,

Warkany, J., and Mabon, H. E., estimation of vitamin-D in blood serum, III,

and Nelson, R. C., appearance of skeletal abnormalities in offspring of rats reared on deficient diet, III, 211, 317.

See also Marks, T. M.

Warkow, R. F. See Burnett, R. S.

Warmke, H. E., section-smear method for plant cytology, III, 315.

Warne, L. G. G., effect of potash supply on tension of tracheal contents in fruit trees and bushes, III, 1082.

Warner, E. D., Spies, T. D., and Owen, C. A., hypoprothrombinæmia and vitamin-K in nutritional deficiency states, III, 834.

See also Brinkhous, K. M.

Warns, E. H. J., effect of vitamin-C on course of tuberculosis in bones and joints, III, 119.

Warren, B. E., X-ray diffraction in random layer lattices, I, 325. Optical methods for study of molecular structure: X-ray method, I, 365. Atomic arrangement in glass, I, 461.

and Fankuchen, L., correction factor for equi-inclination Weissenberg patterns, I, 222.

See also Biscoe, J.

Warren, D. C. See Conrad, R. M., and Sampson, F. R.

Warren, E. W., infectious mononucleosis, III, 965.

Warren, F. L. See Badger, G. M., and

Parsons, L. D.
Warren, J. See Sabin, A. B.
Warren, L. H. See Oliver, E. A., and Schwartz, Louis. Warren, M. F. See Drinker, C. K.

Warren, M. R., Becker, T. J., Marsh, D. G., and Shelton, R. S., effect of l-N-ethylephedrine hydrochloride on bronchioles, uterus, small intestine, stomach, and

pupil, III, 1053. Warren, R. See Abbott, W. O.

Warren, S., and Cowing, R. F., distribution of doses of radioactive phosphorus in rodents, III, 526.

and Gates, O., spontaneous and induced tumours of guinea-pig, III, 279. and Picena, J. P., reticulum cell sarcoma

of lymph nodes, III, 771.

Warren, S. L. See Garvey, P. II., and

O'Leary, P. A.
Warren, S. R., roentgenographic unsharp ness of shadow of moving object. II., III, 46.

Wartenberg, R., head retraction reflex, III, 994.

Warzynski, R. J. See Blicke, F. F. Wash, G. See Kelso, E. A.

Washburn, A. H. See Mareesh, M. M.

Washburn, E. R. Sec Quist, J. D.

Wasley, IV. L. See Van Atta, F. A. Wasmuht, K., hyperplasia of left and total agenesia of right lungs, III, 83.

Wass, S. H., di-iodotyrosine in Graves' disease, III, 1003.
Wasserman, P., and Alberts, E., complement titre of blood of newborn, III, 246. Wassermann, A., catalysis by activated

copper sulphide, I, 215. Wasson, V. P. See Brown, E. E.

Wataghin, G., application of ionoscope to observation of ionising particles, 1, 349. See also Pompeia, P. A., and Santos, M. D. de S.

Watanabe, Atsushi. See Shibata, Keita. Watanabe, Atusi, dimorphism of bromo-

diethylacetylcarbamide, II, 317. Watanabe, K., resonance broadening of sodium D lines, I, 309.

Watanabe, M., influence of thioeyanates on phosphatases, III, 137.

Fujimoto, N., Nomura, K., and Fujita, Shinzaburo, cleavage of position and structural isomerides of hexosemonophosphoric acid by phosphatase, III, 137.

Watanabe, S., meningeal hæmorrhage in child with idiopathic thrombocytopenie purpura, III, 859.

See also Shindo, M. Waterhouse, D. F., physiology and toxicology of blowflies. V.  $p_{\mathbf{H}}$  in alimentary canal. VI. Adsorption and distribution of iron, III, 276.

Waterman, A. J., growth and differentiation of kidney tissue of rabbit embryo

in oriental grafts, III, 67.
Waterman, T. H., effects of ions on whole nerve and isolated single nerve fibre preparations of crustacean neuromuscular systems, III, 852.

Waters, E. G., treatment of post-abortal and post-partum sepsis, with special consideration of sulphanilamide and

allied drugs, III, 460.
Waters, E. T., and Markowitz, J., typical anaphylaxis in dog in absence of liver,

III, 514. See also Jaques, L. B., and Taylor, N. B. Waters, G. W. Sec Zuidema, H. H.

Waters, L. See Sadusk, J.  $\acute{F}$ .

Waters, L. L. See Winternitz, M. C. Waters, R. M., resuscitation, III, 175. Anoxia during anæsthesia, III, 464.

Watkins, C. II. See Hall, B. E. Watson, A. F., chemical reducing capacity, III, 118.

Taggart, R. A., and Shaw, G. E., diphtheria prophylaxis: preparing and assaying prophylactic agents, with note on essential nature of toxoidantitoxin floccules, III, 928.

Watson, C. J., naturally occurring porphyrins. IV. Urinary porphyrin in lead poisoning as contrasted with that excreted normally and in other diseases, III, 109.

Pass, I. J., and Schwartz, S., supposed conversion of protoporphyrin into coproporphyrin by the liver. I. Fate of parenterally administered protoporphyrin in dogs with bile renal fistulæ, III, 680.

Sec also Salzburg, P.

Watson, D. W. See Seibert, F. B.

Watson, E. H., and Moehlig, R. C., suggestions for conducting growth studies, III, 1.

Watson, E. M., methods for administering insulin, III, 264. Sec also Williams, H. L.

Watson, G. M., blood platelets and splenic extracts, III, 646.

Watson, George M., and Felsing, W. A., apparent and partial molal volumes of sodium salts of formic, acetic, propionic, and n-butyric acids in aqueous solution, I, 202.

Watson, K. M., and Smith, R. L., generalised high-pressure properties of gases, I,

Watson, M. C., congenital absence of vagina, III, 823.
Watson, N. A., and Knudsen, V. O.,

selective amplification in hearing aids, III, 261.

Watson, R., and Petrie, A. H. K., physiological ontogeny in tobacco plant. IV. Drift in nitrogen content of parts in relation to phosphorus supply and topping; ontogenetic changes, III, 148.

Watson, IV. IV., heavy-carbon production

by thermal diffusion, I, 358.

See also Schultz, II. L.

Watt, B. E. See Bennett, W. E.

Watt, G. W. See Chambers, E., and Lemons, J. F.

Vattenwyl, H. von, causation of labour, III, 100.

Watts, J. W., neurosurgery, III, 997. Watts, P. S., progress of dairy science. E. Diseases of dairy cattle, III, 627.

Waud, S. P., fæcal impaction due to hygroscopic gum laxative, III, 912.

Waugh, D. F. See Langmuir, I.

Waugh, J. M., and Giffin, L. A., total

gastrectomy and partial æsophagectomy, ĬII, 678.

Waung, L. C., constituents of Chinese drug "chih-shih" (Citrus fusca, Lour., of the family Rutaceæ); derivatives of hesperitin, II, 315.

Wawersig, R. See Löhe, II. Wawra, C. See Leser, A. J.

Wawzonek, S. See Smith, L. I. Waxier, S. H., blood and tissue of chickens during coccidiosis and artificial hæmor-

rhage, III, 965.

Way, E. L. See Oneto, J. F. Wayne, W., and Adkins, H., condensation of ketones by aluminium tert.-butoxide to compounds of the mesityl oxide type, II, 86. d-Glucamine from d-glucose, II, 88. Wearn, R. B. See Adams, R.

Weatherby, J. H., influence of  $p_H$  on depressant effect of nicotine solutions on ciliated epithelium, III, 697.

Weatherford,  $\hat{H}$ . L. See Kuhns, J. G. Weaver, C. See Tarbell, D. S.

Weaver, H. M., histopathological changes in myelinated nerve fibres observed by polarised light method following artificially induced hyperpyrexia, III, 854.

Weaver, J.W.See Sydenstricker, V. P. See Bucy, P. C.

Weaver, T. A. Weaver, W. I. See Spencer, C. C.

Webb, B. D. See Andrews, J. C., and

Kyker, G. C. Webb, C. N. See Brill, H. C.

Webb, F. R. See Dhar, M. L.
Webb, H. W. See Moore, G. E.
Webb, J. H., and Evans, C. H., rebromin-

ation theory of photographic solarisation, I, 423.

Webb, J. L. Sec Leser, A. J. Webb, K. R. See Clark, C. II. D.

Webb, R. W., quartz xenocrysts in olivine basalt from southern Sierra Nevada of California, I, 436. See also Murdoch, J.

Webb, T. J. See Scudi, J. V., and Harris,

S. A. Webb, W. Sec Sollmann, T.

Weber, A., collateral fibrils of posterior nerve roots in chick embryo, III, 177. Transplantation of non-differentiated nerve tissue in chick embryo, III, 239. Development of gastro-duodenal sympathetic plexus in chick embryo, III, 432. Transplantation of eye primordia in chick embryo, III, 746.

Weber, E. See Frey-Wyssling, A. Weber, F. C. See Tolstoi, E.

Weber, F. P., spontaneous recovery from subacute bacterial endocarditis, III, 799.

Weber, G., recording photometer with photo-cell, I, 431.

Weber, G. W. See Plunkett, R. E. Weber, H. See Longtin, B. Weber, H. M. See Kirklin, B. R. Weber, H. P. See Randall, M.

Weber, I., recovery of carbon tetrachloride from tissue, III, 316.
Weber, K. H. See McElvain, S. M.

Webley, D. M. See Quastel, J. H.

Webster, B., and Hoskins, W., influence of androgen therapy on growth rate of hypogonadal adolescent boys, III, 575.

Webster, D. L., perceptual disorientation during landing of airplane, III, 505. See also Pockman, L. T.

Webster, G. L., and Gershon, S. D., derivatives of N¹-phenylsulphanilamide. II., II, 285.

Webster, G. W. See Hampil, B.

Webster, J. E., and Weinberger, L. M., convulsions associated with tumours of cerebellum, III, 254.

See also Weinberger, L. M.

Webster, L. T., antirabic vaccination, III,

and Casals, J., irradiated non-virulent anti-rabies vaccine, III, 1076.

See also Hodes, H. L. Webster, S. H. See Neal, P. A.

Webster, T. A. See Rosenheim, O. Wechsler, H. F., Farmer, L., and Urban,

J. A., case of insulin allergy simulating coronary occlusion, III, 756.

Wechsler, I. S., treatment of amyotrophic lateral sclerosis with vitamin-E (tocopherols), III, 254.

Wedd, A. M., and Lichty, J. A., jun., auriculoventricular (nodal) rhythm in acute rheumatic fever, III, 842.

Weddell, G., multiple innervation of sensory spots in skin, III, 659. Pattern of cutaneous innervation in relation to cutaneous sensibility, III, 659.

and Glees, P., degeneration of cutaneous nerve fibres, III, 825.

Wedler, H. W. See Kempf, H.

Wedum, A. G., determinations of carbohydrate utilisation by bacteria; comparison with acid-indicator methods, III, 139. Immunological specificity sulphonamide-azoproteins, III, 692.

Weech, A. A., micro-photo-electric photometer, III, 406. Significance albumin fraction of serum, III, 492.

See also McCune, D. J.

Weed, J. C. See Weinstein, B. B. Weed, L. A. See Hall, W. K.

Weekers, R., biochemistry of normal and pathological cornea, III, 862. Rôle of calcium in carbohydrate metabolism of lens, III, 864.

Weeks, D. M., Steiner, A., Mansfield, J. S., and Victor, J., depressor effect of splenoreno-pexy on hypertension due to renal ischæmia, III, 424.

Weese, H., mechanism of anæsthesia accidents in sublingual phlegmons, III, 218.

Wegelin, C., liver congestion and liver function, III, 14.

Wegener, E., [allergic] gastro-duodenal ulcer in infancy, III, 361.

Wegner, M. I., Booth, A. N., Elvehjem, C. A., and Hart, E. B., rumen synthesis of vitamin-B complex, III, 374.

Wegria, R., Geyer, J.H., and Brown, R.S., fibrillation threshold after administration of digitalis and ouabain, III, 613.

Wehrli, S., microchemical determination of silver for toxicological analysis, I, 57. Physical chemistry of distillation in forensic determination of alcohol, III,

Wei, F. See Chu, (Miss) E. J. H.

Wei, Y. C. See Chang, Tsing Lien. Weibke, F., hardening in system goldindium, I, 9.

and Schmidt, Wolfgang, solubility of lanthanum in aluminium, magnesium, and homogeneous magnesiumaluminium alloys, I, 9.

Weichsel, M., immunity in diphtheria, III,

Rubin, H. J., Cohen, P., and Lapin, J. H., intracutaneous tests with pertussis "toxin" and complement fixation tests in whooping cough, III, 230.

Weichselbaum, T. E., and Somogyi, M., determination of small amounts of ketones, III, 947.

Weicker, B., damaging action of nicotine on circulation, III, 132.

Weid, F. von der, mineralisations in

Guedmioua region, I, 135. Weigert, F., fluorescence of hydrocarbons and of their mixtures with naphthacene,

11, 8. Weijlard, J., synthesis of cocarboxylase chloride, III, 622.

Weil, A., photo-electric colorimeter, III, 636. Correlation between sex and chemical composition of central nervous system of rats, III, 744. Visual disturbances in hypoglycæmia, III, 1000.

Weil, A. J. See Donnally, H. H. Weil, F. See Halla, F. Weil, L., plasma-phosphatase activity during embryonic and tumour growth,

III, 558. and Jennings, R. K., enzymic histo-III. Distribution chemistry. enzymes in rabbit kidney, III, 585.

and Russell, M. A., plasma-phosphatase activity in relation to fat metabolism

in rats, III, 31. Weil, P. G. See Rose, B. 7—A

Weil-Malherbe, H. See Dickens, F., and Macfarlane, M. G.

Weilbacher, J. O., jun. See Moss, E. S. Weinberg, J. W., scattering in pair theory

of nuclear forces, I, 317.

Weinberg, (Miss) Z. See Bergmann, F.

Weinberger, L. M., and Grant, F. C., hypothalamic tumour and precocious

puberty, III, 988.

and Webster, J. E., visual field defects associated with cerebellar tumours, III, 259.

See also Webster, J. E.

Weiner, J. S., ventilation of air-raid shelters, III, 223.

Weiner, S. B., and Schwarz, H., Addis count and failure of o-tolidine test in hæmaturia in children, III, 365. See also Reiner, M.

Weinert, H., Africanthropus njarasensis, III, 640. Africanthropus, a new East African ape-man, III, 825.

Weingärtner, L., calcium and phosphorus content of raw and heated human and cow's milk and of their ultrafiltrates, III,

Weingarten, M. See Adlersberg, D. Weinhold, F. K., microscopic studies on gall stones, III, 15.

Weinhouse, S., and Hirsch, E. F., lipins of serum and tissues in experimental arteriosclerosis of rabbits, III, 174. See also Morgan, R. H.

Weinig, E., test for barbitone in putrified or exhumed corpses, III, 129.

Weinstein, B. B., Weed, J. C., Lock, F. R., and Collins, C. G., oral administration of diethylstilbæstrol dipropionate, III, 100.

Weinstein, E. A., and Bender, M. B. pupillodilator reactions to sciatic and diencephalic stimulation; comparative study in cat and monkey, III, 258. See also Bender, M. B.

Weinstein, J. See White, C. S.

Weinstein, M., cyclopropane as supplementary anæsthetic to subdural block, III, 217.

Weinstock, H. H., jun., and May, (Miss) E. L., preparation of  $\beta$ -alanine methyl ester, II, 214.

Weinstock, I. See Schwartzman, J. Weinstock, N., laboratory diagnosis of pneumococcal pneumonia, III, 628.

Weintraub, S., and Tuggle, A., duodenal diverticula, III, 679.

Weir, E. G., relationship between body-fat and body-chloride, III, 900.

Weir, J. F., Butt, H. R., and Snell, A. M., clinical use of vitamin-K, III, 288.

Weir, J. M., technique for demonstrating antibodies against tuberculin in experimental animals with sensitised collodion pellets, III, 806. and Horsfall, F. L., jun., recovery from

patients with acute pneumonitis of a virus causing pneumonia in mongoose, III, 631.

Weisblat, D. I. See Wolfrom, M. L. Weiser, H. B., and Milligan, W. O., electron diffraction study of hydrous oxides amorphous to X-rays, I, 82.

Milligan, W. O., and Bates, J. B., isothermal dehydration of heavymetal iron cyanides, I, 278.
Milligan, W. O., and Purcell, W. R.,

alumina floe; composition of floe formed at  $p_{\rm H}$  values below 5.5, 1, 300. Weisiger, J. R. See Audrieth, L. F. Weiskotten, H. G. See Reifenstein, G. H.

Weisler, H. See Tabor, S. H.

Weisman, A. J., and Coates, C. W., Xenopus lævis test for early pregnancy, III, 359.

Weiss, C., serum antistaphylolysin titres during antitoxic therapy of staphylo-coccal infectious, III, 804.

See also Bates, G. Weiss, E., modification of Gram stain, III,

Weiss, F., presence of virulicide vaccineantibodies in mothers' milk and their trophogenic transmission, III, 56.

Weiss, H., automatic blood pressure record-

ing apparatus, III, 843.

Weiss, J., photochemical primary process of ions in aqueous solutions, I, 422. Formation of ions from compounds with conjugated double bonds: hydrocarbon salts, II, 190. Weiss, P., deplanted and deranged nerve

centres in amphibians, III, 565.

Weiss, R. S., Conrad, A. H., and Conrad, A. H., jun., tattoo type blemishes following use of iron salts in treatment of Rhus dermatitis, III, 698.

and Marcus, M. D., control of axillary hyperhydrosis by aluminium phenolsulphonate, III, 696.

Weiss, S., occidental beriberi, III, 285. See also Aird, R. B.

Weiss, W., etiology of megaduodenum, III,

 Weissberg, J. See Scherf, S.
 Weissberger, L. H., phosphorus metabolism in phloridzin diabetes, with radioactive phosphorus as an indicator, III,

Weisskopf, V. F., radiation properties of heavy nuclei, I, 189.

See also Marshak, R. E. Weissman, S. I. See Freed, S.

Weisz, P., rest mass of mesotron, I, 316.

Welch, A. D., casein hydrolysate for study of relationship between choline and homocysteine, III, 288.

Weld, C. B. See Davson, H., and Taylor, N. B.

Weller, R. R.Weller, S. W.See Cohen, M. B. Sec Kadesch, R. G.

Weller, T.H.See Feller, A. E. Weller, W. T. See Gibson, C. S.

Welles, S. B., deuteron bombardment of oxygen, I, 287.

Wellings, A. W., review of recent histological and other researches on Nasmyth's membrane; enamel structure and formation; entrance of nerves into the dentine, III, 321.

Wells, A. F., presentation of crystal chemistry, I, 403.

See also Knott, G.

Wells, A. H., technical precautions before blood transfusions, III, 554.

Wells, A. J., infra-red transmission of thin films of various organic materials, I, 148.

and Wilson, R. B., jun., infra-red and Raman spectra of polyatomic mole-XIII. Nitromethane. XIV. cules. Propylene, I, 241.

Wells, B. B., and Kendall, E. C., influence of hormones of adrenal cortex on ketonuria in rats treated with phloridzin,

Wells, C., and Mehl, R. F., rate of diffusion of manganese in y-iron in low-carbon and high-carbon manganese steels, I, 296. Rate of diffusion of nickel in y-iron in low-carbon and high-carbon nickel steels, I, 331.

Wells, E. H., determination of benzocaine and its separation from acctanilide, II, 388.

Wells, H. G., Slye, M., and Holmes, H. F., occurrence and pathology of spontaneous carcinoma of lung in mice, III, 887.

Wells, H. S., balance of physical forces which determine rate and direction of flow of fluid through intestinal mucosa, III, 512.

Wells, J. A., Burrill, M. W., and Greene, R. R., oral effectiveness of testosterone propionate plus bile acid, III, 576.

Wells, L. J., and Overholser, M. D., effects of estrogen on genital tract and urethra of ancestrous female ground squirrels, III, 193. See also Zalesky, M.

Wells, L. S. See Flint, E. P.

Wells, W. A., danger to hearing apparatus in modern warfare, III, 506.

Wells, W. F., and Lurie, M. B., experimental air-borne disease; quantitative natural respiratory contagion of tuberculosis, III, 1073.
Wells, W. H. See Haxby, R. O.

Welo, L. A., and Baudisch, O., existence of higher hydrates of ferric oxide as transition intermediates, I, 125.

Welsh, H. L. See McCutcheon, J. W. Welsh, J. H. See Levinson, L.

Welte, E., olivo-pontal atrophy, III, 986. Welte, E. J. See Lorber, V. Welti, H., Huguenin, R., and Da Silveira, X. M., chronic thyroiditis: Hashimoto's disease, III, 1002.

Welton, T. A. See Bartlett, J. H., jun. Welz, A., findings similar to encephalitis in brain in sudden death, III, 87.

Wendler, N. L. See Fieser, L. F. Wenger, O. See Grünthal, E.

Wenger, P., and Duckert, R. [with Busset, M.], critical study of qualitative reagents for cobalt cations, I, 430.

Wenner, R., pathology of kraurosis fornicis vaginæ, III, 580.

Wennesland, R., determination of carbon monoxide in blood, III, 339.

Wensel, H. T., temperature and temperature scales, I, 177.
Wenstrand, D. E. W. See Feldt, R. H.

Went, A. F. See Bonner, D. M. Went, F. W., and White, R., transport of auxin [in plants], III, 402. Seo also Le Rosen, A. L.

Went, S., Rex-Kiss, B., and Zsadon, B., species-specificity of globin [of hemo-globin], III, 326.

Wentz, V. B., and Kato, K., primary

carcinoma of liver with Banti's syndrome, III, 768.

Wenzel, L. K. See Meinzer, O. E. Werbel, B. See Vermillion, H. E.

Werch, S. C., consistent blood-sugar values obtained from rabbit heart blood samples, III, 331. Clinical application of micro-diffusion method for determin-

ation of acctone, III, 484.

Day, A. A., Jung, R. W., and Ivy, A. C., intestinal bacteria in decomposition

of pectin, III, 1066.

and Ivy, A. C., fate of ingested pectin, III, 880.

Werkman, C. H. See Krampitz, L. O., Mickelson, M., Nelson, M. E., Silverman,

M., Slade, H. D., and Wood, H. G. Werle, E., Madlener, M. J., and Herrmann, H., histidine-carboxylaso activity in kidneys after obstruction of blood flow, III, I6.

Werle, E., and Schwarz, H. J., spasmolytic effect of kallikrein on artificial cardiospasm of rabbits, III, 694.

Werle, J. M., Brody, D. A., Ligon, E. W., jun., Read, M. R., and Quigley, J. P., gastric evacuation, III, 511.

See also Brody, D. A., and Quigley, J. P. Werlin, S. J., and Dolgopol, V. B., infectious mononucleosis, III, 965.

Werner, A. E. A., oxidising action of selenious acid. I. Organic sulphur compounds, II, 317.

Werner, H. W., effects of benzedrine, coramine, metrazol, and picrotoxin on body temperature and gaseous metabolism in rabbits depressed by alcohol, III, 1053.

Werner, M. See Bigler, J. A. Werner, S., intramuscular excretion urography in infancy, III, 366.

Werner, S. C., urinary excretion of hypophyseal gonadotropin, estrogen, and androgen of normal women, III, 360.

Wernicke, R., spontaneous appearance of crystallisation nuclei in formation of gold sols, I, 258.

Werquin, M. G. See Leriche, R.

Wert, R. W. See Bradsher, C. K.
Wertheim, M. See Meyer, K. H.
Wertheimer, E. See Stern, L.
Werthessen, N. T. See Lawrence, C. H.

Wesoke, P. See Engel, M. R.

Wespi, H. J., prevention of goitre in newborn infants, III, 93.

Wessel, E., operative treatment for crypt-orchidism, III, 508.

Wesson, H. R. Seo Bargen, J. A. Wesson, L. G., 2:4-dinitrophenyl alkyl ethers as stimulants of metabolic rate. II, 63.

See also Howe, P. R.

West, C. D., crystal form of sucrose octaacctate, I, 197.

See also Lamb, A. B. West, C. M. See Dible, J. H.

West, E. See MacInnes, A. S.

West, E. D. See Christensen, B. E. West, E. J. See Gregory, K. K.

West, E. J. See Gregory, K. K. West, E. S. See Todd, W. R.

West, G. B., biological assay of adrenal cortical hormone by its effect on potassium metabolism of rats, III, 573.

West, H. D., and Jefferson, N. C., serumcalcium in negro, III, 838.

West, J. L., lesions of gossypol poisoning in dog, III, 41.

West, K. A. See Patterson, R. F. West, P. W. See Smith, L.

West, R., and Coburn, A. F., relationship of sulphapyridine, nicotinic acid, and coenzymes to growth of Staphylococcus

aureus, III, 53.
West, T. F., conversion of eugenol and its ethers into corresponding propenyl compounds, II, 40. Application of diene synthesis to terpenoid com-pounds. II. Esters derived from maleic anhydride adducts, II, 143.

See also Gillam, A. E.West, T.J. See Parks, G.S.

West, W., and Fitelson, J., photolysis of ethyl iodide in various solvents, I, 275. and Miller, W. E., photosensitisation and fluorescence by aromatic hydrocarbons, I, 242.

Westcott, F. H. See Spain, W. C. Westenbrink, H. G. K., aneurin as agent and object of metabolism, III, 518. and Goudsmit, J., tuberculosis and aneurin metabolism, III, 116.

Westerfield, W. W. See Green, D. E. Westfall, B. B., and Smith, M. I., fate of selenium in the organism, III, 917.

Westgren, A. See Ekwall, (Miss) G. Westhaysen, O. P. van der. See Wislocki.

Westheimer, F. H., and Metcalf, R. P., effect of resonance on reaction velocity, I, 340; II, 290. See also Kleene, R. D.

Westlake, H. E., jun., and Dougherty, G., Bunte salts in synthesis. I. Preparation of mercaptals, II, 159.

Westman, A., transplantation of pituitary, III, 351. Hyperemesis gravidarum; [prolan in urine], III, 359. See also Jacobsohn, D.

Weston, A. W. See Suter, C. M. Weston, J. C. See Bates, L. F. Wetherby, M., intravenous streptococcal vaccine treatment of chronic rheumatoid disease, III, 1071.

Wetmore, F. E. W. See Thomas, M. H. Wetmore, P. W., determining the crythrocyte, leucocyte, and thrombocyte count of fowl blood, III, 161.

Wetterdal, P., emesis gravidarum, III,

Wettstein, A., steroids. XXVIII. Homologues of testicular hormone. IV. Higher homologues of pregnenolone and progesterone. XXIX. Higher homologues of progesterone and deoxycorticosterone acetate, II, 45, 260.

and Hunziker, F., steroids. XXVI. [Preparation of] 21-acctoxy- and 21acetoxyallo-pregnanc-3:20-dione by hydrogenation of deoxycorticosterone acetate, II, 142.

See also Miescher, K.

Wetzel, R. Sce Birkofer, L. Weyer, E. G., Bray, C. W., and Lawrence, M., locus of distortion in the ear, III, 260. Cochlear activity after death, III, 751.

Weygand, F. See Robinson, (Sir) R. Weymouth, F. W., and Brice, A. T., relation of respiratory ventilation to basal metabolism in thyroid disorders, III, 1002.

Weyrauch, H. M., anomalies of renal rotation, III, 485.

Weyrich, G., automatic pipette for bloodalcohol determination (Widmark), III, 333.

Wharton, L. R., treatment of pruritus of perineum, labia, and vagina [by stilbœstrol, an astringent crosol derivative, and injection of alcohol], III, 872. Wheeler, A. See Beeck, O.

Wheeler, D. H. See Stewart, H. W.

Wheeler, J. A., α-particlo model and properties of the nucleus \*Be, I, 94. Scattering of α-particles in helium, I,

and Barschall, H. H., scattering of 2.5 Me.v. neutrons in helium, I, 23. Wheeler, K. M., and Burgdorf, A. L.,

bacteriophage determinations as supplemental procedure in diagnosis of bacillary dysentery, III, 628. Wheeler, M. C., orthoptics, III, 998.

Wheeler, T. S. See Hidayetulla, M. S., and Ullal, V. V.
Wheeler, W. C. G., precipitation of stannic

sulphide, I, I77. Wheeler, W. R. See Whitmore, F. C.

Wheland, G. W., resonance energies of unsaturated and aromatic molecules,

See also Kleene, R. D., and Spitzer, W. C.

Whelden, R. M., Enzmann, E. V., and Haskins, C. P., effect of X-rays on nitrogen fixation by Azotobacter, III, 1065.

Whidden, H. L. See Friedgood, H. B. Whipple, A. O., and Bauman, L., pathological physiology of insular and external secretory functions of human pancreas, III, 767.

See also Mackenzie, D. W.
Whipple, G. H. See Miller, L. M., and
Robscheit-Robbins, F. S.

Whipple, M. A. Seo Elliott, R. H. E., jun. Whistler, R. L., Martin, Albert R., and Conrad, C. M., pectic substance of cotton fibres in relation to growth, III, 62.

Whitacre, F. E., pregnancy test of Kapeller-Adler, III, 579.

Whitaker, D. M., effect of unilateral ultraviolet light on development of Fucus egg, III, 385.

Whitaker, J. S. See Whitmore, F. C. Whitaker, M. D., and Bright, W. C., total and scattering cross-sections for slow neutrons, I, 395. Forward scat-

tering of neutrons by paramagnetic media, I, 440.

See also Murphy, E. J.

Whitby, G. S., and Greenberg, H., isolation of amino-acids from rubber latex, III,

Whitby, L. E. H., therapeutic value of transfusion of derivatives of blood, III, 554. Chemotherapy, scrotherapy and hemotherapy in otology and laryngology, III, 1001.

See also Bushby, S. R. M., and Kekwick, A.

White, A. C., ergot and its alkaloids, III, 219.

White, A. H., and Germer, L. H., structure of black carbon, I, 404.

White, B. E. See Nichols, M. L. White, B. V., and Jones, C. M., mucous colitis; syndrome and emotional tension as precipitating factor, III, 445.

White, C. B., and McGlenn, R. C., removal of stopcock grease from burette tips, I,

White, C. H., theory for concentration and distribution of copper in the earth's crust, I, 227.

White, C. S., Collins, J. L., and Weinstein, J., treatment of surgical shock with blood plasma, III, 831.

White, D. E., molybdenite deposits of Rencontre East Area, Newfoundland, I, 183.

See also Trikojus, V. M.

White, E. P., bromo-complexes for identification of metals and alkaloids, I, 387. Salts of alkaloids with bromo-complexes of heavy metals, II, 305.

White, H. A., immunisation against disease in plants and children, III,

White, H. F. See Litchfield, J. T., jun. White, H. J. See Marshall, E. K., jun.

White, Harvey L., behaviour of diodrast in dog, III, 883. Effects of phloridzin on renal plasma flow, glomerular filtration, and tubular excretion of diodrast in the dog, III, 883.

and Rolf, D., determination of organic iodine compounds and inorganic iodide in plasma and urine, III, 948.

Urban, F., and Monaghan, B., magnitude of surface conductivity at aqueousglass interfaces, I, 268. See also Findley, T.

White, Henry L., interaction of factors in growth of Lemna. XV. Rhythmic growth cycle of Lemna colonies associated with transference to a potassium-free nutrient solution, III, 57.

White, J., retardation of growth of the rat ingesting p-dimethylaminoazobenzene (butter-yellow). I. Effect of various ingesting

dietary supplements, III, 589. White, L. See Ponder, F.

White, M. G., Creutz, E. C., Delsasso, L. A., and Wilson, R. R., positions from light nuclei, I, 94.

See also Delsasso, L. A. White, M. J. D., evolution of sex chromosomes. I. XO and  $X_1X_2Y$  mechanisms in praying mantids. II. X-Chromosome in Tettigonide and Acridide, III, 413, 488.

White, M. M., treatment of sterility, III, 100.

White, N. H., physiology of Ophiobolus graminis, Sacc. I. Growth-factor re-quirements, III, 1064.

White, P. B., obtaining flagellar fraction of vibrios, III, 144. R and p agglutination reactions and agglutinating antigens of V. cholera, 111, 144. Heatstable somatic protein antigen of V. choleræ, III, 145

See also Gale, E. F.

White, P. D., fallacies in treatment of heart disease, III, 843.

White, P. R., plant tissue cultures, III, 69.

White, R. See Went, F. W.
White, R. V. See Koelsch, C. F., and
Marvel, C. S.

White, S. D. See Dunn, H. K.

Whitehead, R. Seo Hodge, H. C., and MacLachlan, P. L.

Whitehead, W. H. See Windle, W. F. Whitehead, W. L. See Bell, K. G. Whitehill, L. N. See Adams, R. Whitelaw, W. See Gaisford, W. F. Whitfield, I. C. See Hughes, E. D. Whiting, P. W., multiple alleles

sex determination of Habrobracon, III,

Whitman, N., and Rosenblum, C., adsorption of alphazurine by potassium nitrate, 1, 332,

Whitmore, F. C., and Johnson, H. H., jun., sulphuric acid in purifying saturated hydrocarbons; its action on ββδ-trimethylpentane, II, 237.

Laughlin, K. C., Matuszeski, J. F., and Surmatis, J. D., polymerisation of olefines. II. Co-polymerisation of sec .- and tert .- butyl alcohols by

sulphuric acid, II, 157.
and Meunier, P. L., polymerisation of olefines. VI. Dimerides from tetra-

methylethylene, II, 345. and Mosher, W. A., polymerisation of olefines. III. Polymeric olefines methylisopropylcarbinol, from 181.

and Nixon, L. W., polymerisation of olefines. IV. Noncees formed by dehydration and co-polymerisation of tert.-butyl and -amyl alcohols, II, 237.

Noll, C. I., Heyd, J. W., and Surmatis, J. D., methylneopentylacetic (ayy-trimethyl-n-valeric) acid, its methyl ester, amide, and anilide, II, 279.

and Pedlow, G. W., jun., △2-cyclohexenone and related substances, II, Whitmore, F. C., Popkin, A. H., Bernstein, H. I., and Wilkins, J. P., common basis of intramolecular rearrangements. VII. Inapplicability of a free radical mechanism; formation of 1:1-dimethylcyclopropane and neopentane by the action of sodium on neopentyl chloride; relation to the mechanism of the Wurtz reaction, II, 90.

and Rohrmann, E., dehydration of tert. carbinols containing the neopentyl

group, II, 347.

and Surmatis, J. D., polymerisation of olefines. VII. Isolation and oxidation of aa-dineopentylethylene, II, 345.

and Thorpe, R. S., treatment of simple aliphatic amines with nitrous acid, II, 187.

Whitaker, J. S., Mosher, W. A., Breivik, O. N., Wheeler, W. R., Miner, C. S., jun., Sutherland, L. H., Wagner, R. B., Clapper, T. W., Lewis, C. E., Lux, A. R., and Popkin, A. H., Grignard reductions. IX. Reduction of acid halides, II, 162.

Wilson, C. D., Capinjola, J. V., Tongberg, C. O., Fleming, G. H., McGrew, R. V., and Cosby, J. N., polymerisation of olefines. V. Isomerides in tritso-

butylenc, II, 345.

Whitney,  $R. \dot{P}$ , and Vivian, J. E., solubility of chlorine in water, I, 372, 462.

Whittemore, W. L., crymotherapy, III, 531. Lisa, J. R., and Saner, P. K., crymotherapy and its relation to hibernation, III. 531.

Whitteridge, D. See Bülbring, E. Whytlaw-Gray, R. See Baxter, G. P. Wichers, E. See Schwab, F. W.

Wick, A. N., and Drury, D. R., effect of concentration on rate of utilisation of  $\beta$ -hydroxybutyric acid by the rabbit, III, 525.

and MacKay, E. M., influence of age on ketosis, III, 380.

MacKay, E. M., Carne, H. O., and Mayfield, H. M., relative antiketogenic activity of glucose, glycine, and alanine, III, 122.

Sherrill, J. W., and MacKay, E. M., degree of ketosis during fasting, III,

See also Barnes, R. H., Drury, D. R., and MacKay, E. M. Wick, (Miss) F. G., triboluminescence of

sugars, I, 73.
Wick, G. C. See Bernardini, G.
Wick, H. J. See Leighty, J. A.

Wickenhäuser, K., case of adrenal tumour causing sudden death [its importance in forensic medicine], III, 94.

Widdowson, E. M., and Alington, B. K., middle-class diets in peace and war, III, 1030.

Widenbauer, F., effect of vitamin-E in premature birth, III, 377.

and Heckler, F., vitamin- $B_1$  content of cow's and breast milk, III, 373.

and Krüger,  $H_{\cdot \cdot}$ , vitamin- $B_1$  metabolism of sucklings, III, 519.

Widerman, A. H., pneumococcic meningitis [treatment], III, 1046.

See also Elitzak, J., and Goldberg, S. Widmann, B. P. See Heublein, G. W. Wiebe, K.G. See Wunder, P.A.

Wiebe, R., and Gaddy, V. L., vapour-phase composition of carbon dioxide-water mixtures at various temperatures and at pressures [up] to 700 atmospheres, I, Wieczorowski, E. See Gray, J. S. Wieder, L. M. See Zeisler, E. P.

Wieland, H., and Jennen, R. G., Strychnos alkaloids. XXIV. Oxidation of derivatives of vomicidine, II, 382.

and Müller, Oskar, Strychnos alkaloids. XXII. Degradation of quaternary salts of the vomicine group, II, 382

and Schmauss, O., Strychnos alkaloids. XXIII. Vomicine, II, 382.

Wienbeck, J., bone marrow in myelo-phthisis, III, 415.

Wiener, A. S., Oremland, B. H., Hyman, M. A., and Samwick, A. A., [blood]

transfusion reactions, III, 554. and Silverman, I. J., subdivisions of group A and group AB, with special reference to so-called agglutinogen  $A_3$ ,

Wiens, J., and Alvarez, L. W., spectroscopically pure mercury (198Hg), I,

Wierda, J. L., diverticulosis of duodenum, III, 318.

Wieringa, K., effect of copper on oxidation of vitamin C, III, 211.

Wiersma, C. A. G., inhibitory nerve supply of leg muscles of different decaped crustaceans, III, 498. See also Keighley, G.

Wiersma, E. C. See De Haas, W. J. Wierzejewski, H., characteristic clastic vibrations of crystals under mixed boundary conditions, I, 152.

Wiese, H. K. See Robey, R. F. Wiesiollek, B. See Bomskov, C. Wiesstien, B. G., clinical aspects of ovarian

deficiencies [and their treatment], III, 871.

Wieting, J. O. G., and Hoskins, W. M., olfactory responses of flies in insect olfactometer. II. Responses of housefly to ammonia, carbon dioxide, and ethyl alcohol, III, 435.

Wiggers, C. J., cardiac adaptations in acute progressive anoxia, ÎII, 563. See also Dingle, J. T., Dow, P., and

Ford, *M. L.* Wigglesworth, V. B., permeability of

insect cuticle, III, 275.

Wightman, K. J. R. See Drury, A. N. Wigner, E. P. See Critchfield, C. L., and Eisenbud, L.

Wigodsky, H. S. See Fauley, G. B., Noble, T. A., and Phibbs, B. P. Wiig, E. O. See Flagg, J. F.

Wikler, L. A. See Holmes, J. W.

Wilbert, G. Sec Brooks, B. T. Wilbrandt, W., preservation of human blood, III, 162.

Wilbur, D. T. See Grumbach, L. Wilbur, K. M., effects of colchicine on

viscosity of Arbacia egg, III, 268.

Wilcke, H. L., use of artificial light for turkeys, III, 133.
and Hammond, J. O., feathering, growth,

feed consumption, and rachitogenesis in chicks as influenced by the kind of grain in diet, III, 455. See also Call, V. D., and Lee, C. D.

Wilcox, L. V. See Scofield, C. S. Wild, W. See Spence, R. Wilder, R. M., nutritional problems related to national defence, III, 1033.

See also Williams, Ray D. Wilder, V. M. See Sure, B.

Wile, U.J., and Courville, C.J., pityriasislike dermatitis following gold therapy, III, 296.

Wile, U.J., and Holman, H.H., generalised herpes zoster associated with leukæmia, III, 72. [Treatment of ] acute disseminated lupus erythematosus [with sulphonamides], III, 292.

and Snow, J. S., chick embyro as culture medium for Spirochæta pallida, III, 804. Lipoid proteinosis, III, 1040. Wiley, P. F. See Stiller, E. T.

Wilgus, H. S., jun., and Gassner, F. X., effect of soya-bean oil meal on avian reproduction, III, 773.
Wilhelm, L. F. X. See Goeckerman,

W. H.

Wilhelm, R. H., colour comparator, I,

Wilhelmi, A. E. See Russell, J. A.

Wilhelmi, G., treatment of scurvy with vitamin-C, III, 375.

Wilkes, W. A. See Burpee, C. M.

Wilkie, J. B., physical and chemical determination of vitamin-A, III, 594. [Determination of] vitamin-A, III, 775.

Wilkins, E. H., poverty and dental caries, III, 773.

Wilkins, J. P. See Whitmore, F. C.

Wilkins, L., epiphysial dysgenesis associated with hypothyroidism, III, 410. Diagnosis of hypothyroidism children, III, 752.

and Fleischmann, W., diagnosis of hypothyroidism in childhood, III,

Wilkins, R. W., and Kolb, L. C., vasomotor disturbances in peripheral neuritis, III, 976.

Wilkins, T. R., scattering of protons by magnesium and aluminium, I, 441. and Wrenshall, G., nuclear energy levels

in magnesium, I, 24.
Wilkinson, C. F., jun. See Field, H., jun.
Wilkinson, E. E., actinomycosis treated with sulphanilamide, III, 1046.

Wilkinson, F. A. H. See Gifford, J. H. Wilkinson, H., palm oil carotenoids, III,

Wilkinson, J. See Sohler, T. P.
Wilkinson, J. F., poisoning by 2-methylbutyraldehyde (isovaleraldehyde), III, 1058.

See also Aylward, F. X., and Mainwaring. B. R. S.

Wilkinson, K. P. See Sandels, M. R. Wilkinson, P. A. See Heilbron, I. M. Wilkinson, S. See Russell, P. B.

Wilkinson, T., and Greenham, C. G., How technique for micro-determination of arsenic, I, 175.

Wilkinson, T. C., treatment of tetany with dihydrotachysterol, III, 753.

Will, G. See Du Pan, C. M.

Willard, G. W., ultrasonic absorption and velocity measurements in numerous liquids, I, 368.

Willard, H. H., and Boyle, A. J., determination and separation of potassium as periodate, I, 279.

Willard, J. See Perlman, H. B. Willard, J. E., mechanism of chemical reactions accompanying isomeric radioactive transition of 80 Br. I. 188.

Willard, J. H., congenital diaphragmatic hernia, III, 238.

Willard, (Miss) M. L., and Jones, (Miss) M. Z., optical properties of phenylthiocarbamide derivatives, I, 34.

Willen, A. See Levi, J. E. Willenegger, H. See Schürch, O. Willenz, J. See Robinson, (Sir) R. Willi, H., tetany in newborn, III, 437.

Williams, A. E. See Owen, S. E.
 Williams, A. O., jun., relativistic self-consistent field for Cu<sup>+</sup>, I, 25.

Williams, C. B., sense of hearing in fishes, 1II, 506.

Williams, D., choline-like substances and epilepsy, III, 743.

and Brinton, D., sulphapyridine in cerebrospinal fever, III, 214.

and Russell, W. R., escrine and prostig-

min in epilepsy, III, 615.

Williams, D. E., MacLeod, F. L., and
Morrell, E., availability to white rats of phosphorus in soya-bean and red

clover hays, III, 23.

Williams, E. C. See Beeck, O.

Williams, E. F., jun. See Morrison, D. B.

Williams, G. See Wood, R. G.

Williams, G. D. See Taussig, J. Williams, G. E. O., sterilisation of blood bank bottles, III, 329.

Williams, H. H., Erickson, B. N., Beach, E. F., and Macy, I. G., biochemical studies of blood of dogs with n-propyl disulphide anæmia, III, 494.

Erickson, B. N., Bernstein, S. S., and Macy, I. G., phospholipins (lecithin, kephalin, and sphingomyelin) of blood in pernicious anemia and lipemia, III, 558.

See also Erikson, B. N.

Williams, H. J., Bozorth, R. M., and Christensen, H., magnetostriction, Young's modulus, and damping of 68 Permalloy as dependent on magnetisation and heat-treatment, I, 367.

See also Bozorth, R. M. Williams, H. L., and Watson, E. M., hyperphosphatæmia of Paget's disease,

III, 730. Williams, J. C., correcting for inequality of beam arms in the analytical balance, I,

Williams, J. E., anuria and ureteral obstruction due to sulphapyridine, III,

Williams, J. H. See Hull, D. E. Williams, James H. See Roblin, R. O., jun.Williams, J. K., Lampman, C. E., and Bolin, D. W., efficiency of carotene as supplied by lucerne meal in vitamin-A requirement of laying hens, III, 115.

Williams, J. M., symptomatic relief of spastic disabilities with  $\beta$ -erythroidine, III, 859.

Williams, J. R., jun., Grollman, A., and Harrison, J. R., reduction of the blood pressure of hypertensive dogs by administration of renal extract, III, See also Grollman, A.

Williams, J. W., and Sadle, A., reactions of keten with salicylaldehyde and p-hydroxybenzaldehyde, II, 14.

Williams, K. T., Lakin, H. W., and Byers, H. G., selenium occurrence in soils in United States of America, III, 1032.

See also Miller, W.T.Williams, L.L. See Dingle,  $J. \dot{T}.$ Williams, M. I., chemotherapy of cerebrospinal fever in childhood, III, 291.

Williams, M. M. D. See Sheard, C.

Williams, O. O. See Rinehart, J. F. Williams, P. C. See Drummond, J. C.,

and Rowlands, I. W. Williams, R., Alexander, H. L., and Kircher, T., action of histaminase on histamine content of blood of rabbit, III, 1079.

Williams, Ray D., Mason, H. L., Wilder, R. M., and Smith, B. F., induced thiamin deficiency in man, III, 209. See also Mason, H. L.

Williams, Roger D. See Feinstone, W. H., and Tobie, W. C.
Williams, R. G., vacuoles in colloid of

thyroid follicles in living mice, III, 414. Williams, R. J., growth-promoting nutrilites for yeasts, III, 471. Importance of micro-organisms research, III, 775. in vitamin

See also Eakin, R. E., Mitchell, H. K., and Spies, T. D.

Williams, R. R., inefficacy of pantothenic acid against greying of fur, III, 1037. See also Schultz, A. S.

Williams, R. T., tetra-acetylaldehydophenylglucosides, II, 5.

See also Sammons, H. G., and Thorpe, W. V.

Williams, T. L. See Corson, E. F.

Williams, T. W., alizarin-red S and toluidine-blue for differentiating adult or embryonic bone and cartilage, III, 242. Williams, W. L. See Hooker, C. W.

Williamson, (Miss) B. See Dunlop, E. C. Williamson, M., and Gulick, A., influenco of testosterone on distribution and excretion of creatine, III, 576.

Williamson, M. A. See Brick, R. M.
Williamson, M. B. See Reineke, E. P.
Williamson, R. R., electrical charges and potentials in cells from metabolism of electrolytes, III, 1043.

Williamson-Noble, F. A., asthenopia, III, 865.

Willinsky, A. I. See Detweiler, H. K. Willis, H. B. See Gilman, H., and Soroos, H. Willis, R. A., solitary plasmocytoma of bone, III, 823.

Willins, F. A. See English, J. P.

Willmon, T. L. See Behnke, A. R. Willoughby, R. R., spousal estimation of

emotionality, III, 179. Willstaedt, H., vitamin content of esculent

fungi, III, 1033.

Wilmanns, R. M., and Hayman, M., zig-zag method in insulin therapy of schizophrenia, III, 860.

Wilsie,  $\hat{C}$ . P. See Norman, A. G.

Wilson, A., adrenalectomy and bloodhistamine of rabbits, III, 263. See also Rhind, E. G. G.

Wilson, A.H., quantum theory of radiation damping, I, 361.

See also Booth, F. Wilson, A. J. C., correction of lattice spacings for refraction, I, 6. Properties of quaternary alloy equilibrium diagrams, I, 107. Thermal expansion of aluminium from 0° to 650°, I, 200. and Lipson, H., calibration of Debyo-

Scherrer X-ray powder cameras, I, 221. See also Edwards, O. S., and Lipson, H.

Wilson, A. T. See Cullen, G. E.

Wilson, A. T. M. See Wittkower, E. Wilson, C., and Byrom, F. B., vicious circle in chronic Bright's disease; experi-

mental evidence from hypertensive rat, III, 846.

Wilson, C. D. See Whitmore, F. C. Wilson, C. L., double gall bladder with 2 cystic ducts and 2 cystic arteries, III, 107.

Wilson, Cecil L., gas detection apparatus for qualitative microchemistry, I, 91. Micro-tests for elements in organic compounds. II. Phosphorus, arsenic, and antimony, II, 80.

Wilson, Christopher L., and Wylie, A. W., preparation of totradeutcrethylene dibromido by union of dideuteracetylene and deuterium bromide, II, 347.

Wilson, C. R. See Graner, R. C.

Wilson, C. W., dependence of secondary electronic emission produced by  $\gamma$ -radiation on direction of radiation, I, 358.

Wilson, D., Grauer, R. C., and Saier. E.. extractor for estrogens and androgens,

See also Penfold, W.J., and Sadusk, J.F.Wilson, D. C., fluorine in ætiology of endemic goitre, III, 348. Fluorine and dental caries, III, 455.

Wilson, E. A. See Xan, J.

Wilson, Earle A., Windle, W. F., and Alt, H. L., deprivation of placental blood as cause of iron deficiency in infants, III. 961.

Windle, W. F., and Fitzgerald, J. E. development of tractus solitarius, III,

Wilson, E. B., jun., mathematical methods for study of molecular vibrations, I,

See also Crawford, B. L., jun., and Wells, A. J.

Wilson, E. C. Sec Ogle, K. N. Wilson, F. J. See Hopper, I. V. Wilson, H. See Salter, W. T.

Wilson, H. A., and Richards, L. A., controlling pH of nutrient solutions in sterile sand cultures, III, 63.

Wilson, H. N., and Heron, A. E., cyclohexanol as solvent for cryoscopie determination of mol. wts., I, 330.

Wilson, J. See Cameron, G. R. Wilson, J. B. See Wyss, O. Wilson, J. G., Young, W. C., and Hamilton,

J. B., suppressing development of reproductive function and sensitivity to œstrogen in female rat, III, 676.

Wilson, J. K. See Katznelson, II. Wilson, (Miss) J. M. See Briggs, L. H.,

and Robinson, R. A.

Wilson, J. W. See Asmussen, E., and Dill, D. B.

Wilson, P. W., Lee, S. B., and Wyss, O., mechanism of symbiotic nitrogen fixation. V. Nature of inhibition by hydrogen, III, 711.

and Umbreit, W. W., mechanism of symbiotic nitrogen fixation. III. Hydrogen as a specific inhibitor, III,

See also Burris, R. H., and Wyss, O.

Wilson, R., and Gibson, M., abnormal intravenous glucose tolerance in liver disease, III, 882.

Vilson, R. C., and Henze, H. R., keto-ethers. VIII. Preparation of y-chloro-aethoxypropyl alkyl ketones, II, 351.

Wilson,  $\hat{R}$ .  $\hat{H}$ ., De Eds, F., and Cox, A. J., jun., effects of continued cadmium feeding, III, 697. See also De Eds. F.

Wilson, R. J., laboratory procedures in staphylococcal food poisoning, III, 309. Wilson, R. R., vacuum-tight sliding seal, I, 224.

See also White, M. G.

Wilson, R. S., disintegration of boron by slow neutrons, I, 187.

Wilson, W. C., systematic disturbances and their treatment in extensive burns, III, 222. Lethal factors in burns, III, 619.

See also McKail, R.A.Wilson, W. E. See Stevens, N. E. Wilson, W. J., and Reilly, L. V., bismuth sulphite media for isolation of V. cholera. III, 1072

Wilson, W. K., fertility in Flemish and

wison, W. A., fertility in Flemish and smaller types of rabbit, III, 189.
Winch, R. P. See Farnsworth, H. E.
Winchester, C. F., and McKenzie, F. F., relative metabolic rates of semen, seminal plasma, and bacteria in semen of boar, III, 672.

Winekel, C. W. F., neoarsphenamine in therapeutic malaria, III, 1054.

Winckler, A. W. See Hoff, H. E.

Windisch, S., influence of organic acids on germination of ascospores of Bombardia lunata, Zckl., III, 48.

Windle, W. F., Becker, R. F., Barth, E. E., and Schulz, M. D., aspiration of amniotic fluid by feetus, III, 442.

Sweet, M., and Whitehead, W. H., aspects of prenatal and postnatal development of blood in cat, III, 415. See also Becker, R. F., Rhines, R., and

Wilson, Earle A.

Windred, G., electrical contact resistance, I, 322.

Windsor, E. See Koehler, A. E. Windwer, C. J. See Matzner, M. J. Winegar, A. H. See Pearson, P. B.

Winer, L. H., pseudoepitheliomatous hyperplasia, III, 207.

and Strakosch, E. A., [tissue reactions to] tick bites, III, 1056. Winer, N. J., and Baer, R. L., exfoliative

dermatitis duo to phenobarbital, III,

Winfield, J. M. See Hartzell, J. B.

Wingfield, A., hyperventilation tetany in tropical climates, III, 981.

See also Davis, A. Winkelman, N. W., and Moore, M. T., neurohistopathologie changes with metrazol and insulin shock therapy, III, 255.

Moore, M. T. lymphogranulomatosis (Hodgkin's disease) of nervous system,

III, 664.

Winkle, W. van, jun. See under Van Winkle, W., jun.

Winkler, A. W., Hoff, H. E., and Smith, P. K., cardiovascular effects of potassium, calcium, magnesium, and barium, III, 296. Toxicity of orally administered potassium salts in renal insufficiency, III, 884.

See also Hoff, H. E., and Smith, P. K. Winkler, H., capillary permeability of intact intestine of newborn and treatment of melæna neonatorum, III, 598.

and Binder, A., action of gonadotropic hormones of anterior pituitary and follicular hormone, III, 97.

and Fritsche, H., effect of ascorbic acid and calcium lactate on potassium/ calcium ratio of pregnancy serum and of fœtus in rabbits, III, 419.

Winnick, T., and Greenberg, D. M., use of optical rotation in study of protein hydrolysis, II, 115.

Winning, E., transition between liquid and vapour, I, 199.

Winslow, A. F. See Gilliam, W. F. Winter, A. R. See Hunt, C. H.

Winter, C. A., Ingram, W. R., Gross, E. G., and Sattler, D. G., sodium and chloride balance in cats as affected by diabetes insipidus, adrenal insufficiency, and pitressin, III, 573.

Winter, H. C., p-nitro- and p-aminobenzoyl-d-(-)-glutamic acid, II, 214.

Winter, H. C., and Reinhart, F. E., preparation of phenyl 2-pyridyl and 8-quinolyl sulphides and sulphones, II, 75.

Winter, I. C., and Crandall, L. A., jun., portal absorption of fatty acids, III, 879. Winter, L. L. See Culbertson, J. L. Winternitz, M. C., and Katzenstein, R.,

relation of kidney to cardiovascular disease, III, 273.

Katzenstein, R., Mylon, E., Murphy, J. P., and Zimmerman, H. M., brain in experimental vascular disease, III,

Mylon, E., and Katzenstein, R., relation of kidney to cardiovascular disease. III. Tissue extracts and thrombosis, III, 845.

Mylon, E., Waters, L. L., and Katzenstein, R., relation of kidney to cardiovascular disease, III, 249.

and Waters, L. L., effect of hypophysectomy on compensatory renal hyper-trophy in dogs, III, 265.

Winters, R. See Uber, F. M.
Winters, W. L., Fox, W. W., Rosi, R., and
Lammers, D., intravenous use of sodium sulphapyridine in pneumonia and pneumococcus infections, III, 459.

Rhoads, P. S., Fox, W. W., and Rosi, R., treatment of pneumococcic pneumonia with sulphapyridine, III, 1044.
Wintersteiner, M. P. Sco Mackenzie,

D. W.

Wintersteiner, O., adrenogenital syndrome,

and Bergström, S., action of oxygen on colloidal solutions of cholesterol, II,

and Ritzmann, J. R., isolation of  $7(\beta)$ hydroxycholesterol from scrum of pregnant mares, III, 333.

Winton, E. R. See Lesslie, M. S.

Winton, F. R. See Eggleton, M. G. . Wintrobe, M. M., erythrocyte sedimentation test, III, 959.

Winzeler, H., use of sulphathiazole in gynæcology and obstetrics, III, 1046.

Winzler, R.J., respiration of bakers' yeast at low oxygen tension, III, 797.
Wirth, J. See Baumann, A.
Wirts, C. W., jun., and Lyon, B. B. V.,

incidence of regional ileitis, III, 1016.

See also Cantarow, A. Wirtschafter, Z. T., rôle of metals in carbohydrate metabolism, III, 900.

Wirz, W. See Ruzicka, L. Wise, B., evaluation of Brucella opsonocytophagic test, III, 141.

See also Kempner, W.
Wise, G. H., Miller, P. G., and Anderson,
G. W., changes in milk "sham fed" to

calves, III, 450. Wise, P. H. See Newman, M. S. Wiseman, J. R., and Gillette, D. F., allergy to tryparsamide, III, 529.

Wishnofsky, M., Kane, A. P., Spitz, W. C., Michalover, S., and Byron, C. S., influence of glycerol on glycæmia in normal and diabetic individuals, III, 289.

Wislocki, G. B., and Enders, R. K., placentation of bottle-nosed porpoise (Tursiops truncatus), III, 319.

and Westhaysen, O. P. van der, placentation of *Procavia capensis*, with discussion of placental affinities of Hyracoidea, III, 155.

Wissler, H., fenestræ parietales symmetricæ, III, 2. Congenital complete heart block, III, 78.

See also Yiey.

Wistar, R., and Bartlett, P. D., kinetics and mechanisms of coupling of diazonium salts with aromatic amines in buffer solutions, II, 130.

Wiswall, R. H., jun., and Smyth, C. P. measurement of dielectric constants of vapours and polarisations of trimethylaluminium, dimethylaluminium chloride, and methylaluminium dichloride, I, 242. Induction and dipole moment in chloroand nitro-paraffins, I, 243. Witcher, C. M., electron lens type of  $\beta$ -ray

spectrometer, I, 390.

Wifebsky, E., and Klendshoj,  $N \cdot C$ ., isolation of blood group specific B substance, III, 643.

Klendshoj, N. C., and Swanson, P. preparation of safe universal blood, III, 964.

With,  $\hat{T}$ . K., colloidal solutions of carotenoids and vitamin-A; preparation, properties, durability, and methods of quantitative analysis, III, 518. Determination of vitamin-A, their mutual relations and conversion factors; different vitamin-A units and their conversion into international units, III, 775.

See also Friederichsen, C.

Withell, E. R. See Burn, J. H.

Witlin, B., perfusion technique for evaluation of bactericides, III, 707.

See also Gershenfeld,  $L_2$ Witmeyer, J. R. See McReynolds, J. P.Witschi, E., and Fugo, N. W., response of sex characters of adult female starling

to synthetic hormones, III, 577. Wittbecker, E. L. See Marker, R. E. Witte, M. See Shriner, R. L.

Wittich, F. W., spontaneous allergy (atopy) in lower animal, III, 810. Allergic rhinitis and asthma due to sensitisation to Mexican bean weevil (Zabrotes subfasciatus, Boh.), III, 811.

Wittkower, E., Rodger, T. F., and Wilson, A. T. M., effort syndrome, III, 423. and Wilson, A. T. M., dysmenorrhœa and sterility, III, 270.

Wittle, E. L. See Marker, R. E. Wittneben, H. See Rienäcker, G.

Witts, L. J., effects of serum in cases of extensive burns, III, 222.

and Hobson, F. C. G., analysis of hæmorrhagic states, III, 328.

See also Hobson, F.C. G. Witzemann, E. J. See Allen, R. H. Witzerberg, C. M. See Benson, R. A. Wo, B. See Yoshida, Tadasi.

Wodak, E., auditory apparatus and aviation, III, 181.

Wodzicki, K. See Hammond, J. Wofford, C. P., and Ernstene, A. C., diagnostic significance of increased Q-T interval in the electrocardiogram, III, 420.

**Wohl**, K., photosynthesis in purple bacteria and green plants, III, 481.

Woke, P. A., effects of ingested insecticides on mid-gut wall of southern army worm larva, III, 695.

Woker, G., and Bernhard, P., chemical detection of vitamin-F, III, 600. Wolbach, S. B. See Howe, P. R.

Wolcott, R. R. See Van Slyke, C. J. Woldman, E. E., treatment of massive gastro-duodenal hæmorrhage by continuous administration of colloidal

aluminium hydroxide, III, 677. and Rowland, V. C., one-flask apparatus for aluminium hydroxide drip treatment of peptic ulcer, III, 678.

Wolf, E. See Crozier, W. J.

Wolf, J., oxygen metabolism of succulent Crassulaceæ. IV. Variations in total, malic, and citric acid contents. V. Micro-respiration tests with leaf-tissue of Bryophyllum calycinum, III, 399.

Wolf,  $\hat{L}$ .  $\hat{J}$ . See Bozarth, S. S. Wolf, R. A. See Haythorn, S. R.

Wolf, S., and Lewis, G. M., riboflavin and smallpox vaccine in pemphigus vulgaris, III, 1036.

Wolfe, C. W., classification of minerals of type  $A_3(XO_4)_2, nH_2O$ , I, 355. Unit cell of dickinsonite, I, 491.

See also Berman, H., and Richmond,

Wolfe, J. K., Fieser, L. F., and Friedgood, H. B., androgens in female adrenal

tumour urine, II, 139; III, 369. Hershberg, E. B., and Fieser, L. F., polarographic determination of ketonic steroids, III, 269.

See also Drake, N. L., Fieser, L. F., Hershberg, E. B., and Talbot, N. B.

Wolfe, J.M., and Eaton, O.N., quantitative histologic studies on anterior pituitaries of various strains of guinea-pigs, III, 159.

Sec also Wright, A. IV.

Wolfe, K. M. See France, W. G. Wolferth, C. C. See Rose, E.

Wolff, H. G., Hardy, J. D., and Goodell, H., effect on pain threshold of acetylsalicylic acid, acetanilide, acetphenetidinc, aminopyrine, ethyl alcohol, trichloroethylene, a barbiturate, quinine, ergotamine tartrate, and caffeine, III, 341.

See also Ray, B. S., and Schumacher, G. A.

Wolff, J., hæmoglycolysis, III, 331. Blood transfusion and rickets, III, 376.

Wolff, R. See Florentin, P.

Wolff, R. T. See Feinstone, W. H. Wolff, Y. See Heinze, R. Wolffe, J. B. See Hyman, A. S.

Wolfrom, M. L., Benton, F. L., Gregory, A. S., Hess, W. W., Mahan, J. E., and Morgan, P. W., osage orange pigments. V. Isomerisation, II, 145.

and Brown, R. L., derivatives of aldehydrol form of sugars. IV., II, 242. and Mahan, J. E., osage orange pigments.

VII. isoFlavone nature of pomiferin, II, 267.

Mahan, J. E., Morgan, P. W., and Johnson, G. F., osage orange pig-VI. isoFlavone nature of ments. osajin, II, 267.

and Moody, F. B., acyclic derivatives of d-lyxose, II, 86.

and Myers, D. R., molecular size of polysaccharides [determined] by mer-captalation method; methylated potato starch, II, 243.

and Pletcher, D. E., structure of Cori ester, II, 181.

Weisblat, D. I., and Hanze, A. R., d-glucose O-methyl S-cthyl monothioacetal, II, 211.

Weisblat, D. I., and Waisbrot, S. W., action of diazomethane on acyclic sugar derivatives. II., II, 121.

Weisblat, D. I., Zophy, W. H., and Waisbrot, S. W., action of diazomethane on acyclic sugar derivatives. I., II, 87.

Wolk, E., congenital syphilis in identical twins with dissimilar serological reactions, III, 629.

Wolkenstein. See under Volkenstein.

Wollan, E. O. Sec Schein, M.

Wollenweber, H. See Krantz, J. C., jun. Wolman, I. J., homogenised milk, III, 772. Congenital stenosis of trachea, III, 952.

Wolman, W. See Benne, E. J. Wolnak, B. See Billman, J. H.

Wolpers, C., solution of gall stones in contracted gall bladders, III, 1019.

Wolpert, P. L. See Kerr, W. H. Wolter, E. See Bartholomeyczyk, W.

Woltjer, H. R., artificial radioactivity and the cyclotron, I, 313. Woltman, H. W., and Craig, W. McK.,

tumour of brain [diagnosed by electroencephalogram], III, 344.

Smith, B. F., Moersch, F. P., and Love, J. G., prefrontal lobotomy in treatment of mental disorders, III, 666.

See also Shelden, C. H.

Womack, N. A., and Bricker, E. M., pathological changes in gall-bladder wall due to action of bile, III, 273. See also Cole, W. H.

Wong, R. See Christensen, B. E. Wong, S. C., proteins of B. diphtheriæ, III,

and Ouyang, G., purified tuberculin prepared from bacterial bodies, III, 395. Stability of dilute purified tuberculins, III, 630. Estimation of biological activities of purified tuberculin by Hopkins tube, III, 1073.

Woo, T. T. See Fan, C.

Wood, B. J., erythroblastic anamia, III,

Wood, C. E. See Ju, T. Y. Wood, C. L. See Calvin, M.

Wood, E. H., sulphanilamide per rectum, III, 785.

Wood, F. C., lead in urinary calculi, III, 1021.

Wood, H. G., Geiger, C., and Werkman, C. H., nutritive requirements of heterofermentative lactic acid bacteria, 111, 307.

Werkman, C. H., Hemingway, A., and Nier, A. O., degradation of propionic acid synthesised by propionibacterium, III, 537. Fixation of carbon dioxide in Krebs cycle, III, 601. Position of carbon dioxide carbon in succinic acid synthesised by heterotrophic bacteria, III, 626. Heavy carbon as a tracer in heterotrophic carbon dioxide assimilation, III, 626. Position of carbon dioxide-carbon in propionic acid synthesised by Propionibacterium, III,

Werkman, C. H., Hemingway, A., Nier, A. O., and Stuckwisch, C. G., reactions used to locate assimilated carbon in propionic acid, II, 348. See also Slade, H. D.

Wood, J. See Hargrave, J.

Wood, J. H., Bacon, J. A., Meibohm, A. W., Throckmorton, W. H., and Turner, G. P., synthesis of symmetrical diarylethylenes, 11, 257.

Wood, J. L., and Fieser, L. F., thiol and cysteine derivatives of 1:2-benzanthra-10-methyl-1:2-benzanthracene, and 3:4-benzpyrene, II, 10.

See also Du Vigneaud, V. Wood, L. A. See Bekkedahl, N. Wood, L. J. See Powney, J.

Wood, R. G., and Crackston, J. E., crystal structures of heterocyclic organic compounds of analogous constitution. I. Thianthren and selanthren, I, 76.

Wood, R. G., McCale, C. H., and Williams, G., crystal structures of heterocyclic organic compounds of analogous constitution. II. Phenthiazine, phenox-thionine, phenoxsclenine, and phenoxtellurine, I, 76.

and Williams, G., crystal structures of heterocyclic organic compounds of analogous constitution. III. Phenazine and diphenyleno dioxide, I, 104. Optical properties of melamine, I, 196.

Wood, S. R. See Heston, B. O. Wood, W. A., X-ray diffraction and the deformation of metals, I, 325.

See also Smith, S. L.

Wood, W. B., jun., action of sulphapyridine on pulmonary lesion of experimental pneumococcal pneumonia, III, 693.

Woodall, E. A., detailed analysis of gold L spectrum, I, 311.

Woodbridge, P. D., Horton, J. W., and Connell, K., prevention of ignition of anæsthetic gases by static spark, III,

Woodburn, H. M., laboratory circulating pump, I, 391.

Woodbury, R. A., and Hamilton, W. F., effect of histamine on pulmonary blood pressure of various animals with and without anæsthesia, III, 528.

Woodcock, A. H., Thistle, M. W., Cook, W. H., and Gibbons, N. E., ability of sheeps' erythrocytes to survive freezing, III, 830.

Woodriff, R., wash bottle, I, 60.

Woodruff, H. B. See Waksman, S. A. Woodruff, L. M., tumours produced by estradiol benzoato in guinea-pig, III, 1026

Woodruff, P., blood platelets in thyrotoxicosis, III, 74.

Woodruff, S. See MacMasters, M. M.

Woodruff, S. A., and Stamm, A. J., magnetic stirrer for an evacuated sorp-

tion apparatus, I, 486. Woods, A. C., and Burky, E. L., ocular tuberculosis. VI. Effect of sensitivity and immunity on experimental lesions of ocular tuberculosis, III, 257.

Woods, A. W. See McLean, C. C. Woods, G. F. See Bartlett, P. D.

Woods, J. T., and Mellon, M. G., spectrophotometrie study of universal indicators, I, 218. Thiocyanate method for [determination of] iron, I, 484.

Woods, L. L., selenium [poisoning], III,

Woodward, G. E., Reinhart, F. E., and Dohan, J. S., glutamic acid of malignant tissue proteins, III, 1028.

Woodward, H. Q., and Higinbotham, N. L., sorum- and tissue-phosphatase determinations in bone tumours, III, 772.

Woodward, I. See Lonsdale, K. Woodward, R. B., [relation between] structure and absorption spectra of  $a\beta$ -unsaturated ketones, II, 197.

Kohman, T. P., and Harris, G. C., new optically active reagent for carbonyl compounds; resolution of dl-camphor, II, 106.

See also Bartlett, P. D.

Woodward, T. M., function of apyrene spermatozoa of Goniobasis. I. Behaviour of apyrene and eupyrene sperms, III,

Woodworth, C. E., imbedding technique, · III, 958.

Wooley, J. G. See Isbell, H., and Sebrell, W.H.

Woolf, B., quantitative studies of effect of haptens on reaction between antigens and antibodies, III, 930. Reaction between type II pneumococcus antiserum and a glycuronide azoprotcin, III,

Woolf, L. I. See Dhar, M. L. Woolfe, G. See Russell, P. B.

Woolley, D. W., dietary essential for mice, III, 121. Anti-alopecia factor, III, 210. Identification of mouse anti-alopecia factor, III, 686. Manganese and growth of lactic acid bacteria, III, 800. Biological specificity of inositol, III, 897. Determination of inositol, III, 947. Relationship of panthothenio acid and inositol to alopecia in mice, III, 1036.

and Hutchings, B. L., synthetic media for culture of hæmolytic streptococci,

III. 1070.

and McCarter, J. R., antihæmorrhagic compounds as growth factors for Johne's bacillus, III, 628.

Woolley, G., Fekete, E., and Little, C. C., effect of castration in dilute brown strain of mice, III, 353. Differences between high and low breast tumour strains of mice when ovariectomised at birth, III, 360.

Woolsey, C. N. See Marshall, W. H. Worchel, P., and Lyerly, J. G., effects of prefrontal lobotomy on depressed

patients, III, 742. Work, C. E. See Lythgoe, B.

Work, T. S., synthesis of N-trimethylglycylcholine, II, 161. See also MacIntosh, F. C.

Wormith, D. J., and Rae, J. J., determination of a glycerophosphates in aqueous solution by lead tetra-acetate, II, 386.

Worrall, D. E., reactions of unsaturated nitro-compounds derived from terephthalaldehyde, II, 215. Preparation of

germanium tetraphenyl, II, 273.
Worster-Drought, C., and Shafar, J., megacolon with changes in fundus oculi and hydrocephalus, III, 363. Vitamin-E in nervous disorders, III, 986.

Wort, D. J., vernalisation of Marquis wheat and other spring cereals, III, 539. Worthing, A. G., temperature radiation emissivities and emittances, I, 177.

Wortis, J., Bowman, K. M., Goldfarb, W., Fazekas, J. F., and Himwich, H. E., availability of lactic acid for brain oxidations, III, 989.

Goddhart, R. S., and Bueding, E., cocarboxylase, pyruvic acid, and bisulphite-binding substances [in blood and cerebrospinal fluid] in children, III, 649.

and Jolliffe, N., status of vitamins in nervous health and disease, III, 861.

See also Bueding, E., Goldfarb, W., Himwich, H. E., and Kennedy, F.

Wortis, S. B., effects of insulin, metrazol, and camphor convulsions on brain metabolism [rat, cat], III, 860. See also Kennedy, F.

Wortman, M. See Deakin, R. Worton, M. See Dourmashkin, R. L.

Worzniak, J. J. See Gesell, R. Wray, S. See Miller, S. Wrede, W., coefficient of mass intensity reduction of monochromatic X-rays for 24 elements between carbon (6) and cerium (58), for wave-lengths of 0.1279-1.433 A., I, 22.

Wrenshall, G. See Wilkins, T. R.

Wretlind, K. A. J., colorimetric determination of potassium in 0.01-0.1 c.c. of blood serum, III, 332. Wright, A. D. See Bourne, G.

Wright, A. J., nature and treatment of Ménière's disease, III, 92.

Wright, A. W., Klinck, G. H., jun., and Wolfe, J. M., pathology and pathogenesis of mammary tumours occurring spontaneously in Albany strain of rats, III, 279.

Wright, B. T. See Livingston, R. S.
Wright, C. See Stone, C. P.
Wright, C. I., enzymic deacetylation of heroin and closely related morphine derivatives by blood serum, III, 129, 465. Effect of sodium selenite on bloodsugar and liver-glycogen of rats and rabbits, III, 731. Inactivation of choline-esterase by morphine and derivatives, III, 1049.

Wright, C. S., vitamin-D therapy in dermatology, III, 1038.
Wright, D. C. See Ghosh, R.
Wright, F. H., effect of foster-nursing on

inborn resistance of mice to St. Louis encephalitis, III, 395. Virus diseases in childhood, III, 807.

Wright, G. F. See Chute, W. J., and Spencer, E. Y.

Wright, G. P., and Hopkins, S. J., reversed passive skin sensitisation to horse serum in human beings, III, 1080.

Wright, H. D., diphtheria in Liverpool during the years 1937—40, III, 627. See also Holt, H. D?

Wright, H. N., statistical method for calculating mortality percentages in digitalis assays, III, 911.

Wright, H. P., adhesiveness of blood platelets with varying concentrations of anticoagulants, III, 966.

Wright, I. S., treatment of arteriosclerosis obliterans, III, 251.

See also Flexner, J., and Ludden, J. B. Wright, L. D. See Snell, E. E.

Wright, M. D., vitamin-D3 requirement of pullet chicks: genuine and controlled

cod-liver oil in feeding poultry up to age of six weeks, III, 287. See also Pyke, M., and Ridgway, R. R. Wright, N. See Gildart, L. Wright, N. C. See Owen, E. C.

Wright, R. D., Jennings, M. A., Florey, H. W., and Lium, R., influence of nerves and drugs on secretion by small intestine; enzymes in intestinal juice, III, 104.

Wright, R. R. See Anson, B. J.
Wright, S. T. See Minnich, V.
Wright, T. A., variables versus constants

in emission spectrography, I, 19.

Wright, W. D., photo-electric spectrophotometry and its uses in industry, I, 139. Colour vision and chromaticity scales, III, 260. Sensitivity of eye to small colour differences, III, 346.

See also Niehaus, F. W. Wrinch, D. M., fabric theory of protein structure, II, 113. Geometrical attack

on protein structure, II, 114. Wrzeszinski, G. W. See King, A.

Wu, C. H., and Tsai, C., antihemolytic activity of normal and pathological plasma, III, 962.

Wu, C. S., identification of two radioactive xenons from uranium fission, I, 144. Continuous X-rays excited by  $\beta$ -particles

of  $^{32}_{10}$ P, I, 234. Wu, H. See Chang, C. Y., Chen, T. T., and Liu, S. C.

Wu. S. D. See Char, G. Y., Kimm, H. T., Shih, H. E., and Snapper, I.

Wu, T. Y., satellite lines in atomic spectra and excitation of electrons from closed shells, I, 65. Coriolis perturbations and molecular dimensions in germane, GeH,

Wu, (Miss) V. L., and Barker, E. F., infra-red absorption spectrum of propane,

Wu, Y. J., Chiu, T. L., and Ping, C., effect of cerebral cortical lesion on respiratory exchange and associated phenomena of albino rat, III, 856. Effects of partial decortication on gaseous metabolism, III, 1039.

Wu, Y. K., and Pai, H. C., hydronephrosis, III, 681.

Würzberger, E. H., variations of types of typhoid bacteria, III, 395.

Wuhrmann, F., and Leuthardt, F., plasma-proteins, III, 649.

See also Burger, R.

Wulf, O. R., and Jones, E. J., infra-red absorption of phenol and its halogen derivatives in region of second overtone of OH absorption, I, 5.

Jones, E. J., and Deming, L. S., combination frequencies associated with first and second overtone and fundamental OH absorption in phenol and its halogen derivatives, I, 5.

See also Schultz, J. F.

Wunder, P. A., does extent of thyrotropic reaction depend on functional condition of testis? III, 507.

and Jung, E. E., mechanism of augmentation caused by adding zinc salts to thyrotropic extracts, III, 869.

and Wiebe, K. G., test object for determining thyrotropic hormone, III,

Wunderly, H. L., and Smelo, L. S., centrifuge cooling unit, I, 129.

See also Thomas, H. W.

Wurm, K., sulphapyridine, III, 37.
Wyatt, G. M., excretory urography for children, III, 769.

Wyburn, G. M. See Bacsich, P. Wycis, H. See Spiegel, E. Wyckoff, R. W. G. See Kurotchkin, T. J., and Scheer, J. van der.

Wyler, M. See Porter, J. C. Wylie, A. W. See Wilson, Christopher L. Wyman, F. W., and Barkenbus, C., methyl esters of higher fatty acids, II, 387.

Wyman, J., jun., and Ingalls, E. N., inter-relationships in the reactions of horse hæmoglobin, III, 794.

Wyman, L. C. See Suden, C. T. Wynd, F. L., and Varney, P. L., vessel for measurement of  $p_{\rm H}$  and oxidation-reduction potential of bacterial cultures, III, 925.

Wynn, W. See Bachmann, G., and Haldi, J. Wynne, R. L., partial rebreathing in anæsthesia, III, 425.

Wynne, W. P. See Turner, (Miss) E. G. Wynne-Jones, W. F. K. See Everett, D. H.

Wysens, R. J. See Hall, L. T.
Wyss, J. See Plattner, P. A.
Wyss, O., Lind, C. J., Wilson, J. B., and Wilson, P. W., biological nitrogen fixation.
VII. Molecular hydrogen and nitrogen partial pressure function of Azotobacter, III, 926. and Wilson, P. W., biological nitrogen fixation. VI. Inhibition of Azotobacter

by hydrogen, III, 536. See also Wilson, P. W.

Wyss-Chodat, F., action of sulphapyridine and sulphathiazole on boils of upper lip, III, 33. Skin rashes produced by sulphapyridine, III, 36. See also Golay, J.

Xan, J., Wilson, E. A., Roberts, L. D., and Horton, N. H., absorption of oxygen by mercaptans in alkaline solution, II, 183.

Y.

Yablunky, H. L. See Gilman, H. Yajnik, J. N. See Gaind, K. N. Yamabe, T. See Shibata, Y.

Yamada, K., pharmacology of camphor and related substances, III, 128.

See also Kawakami, H.

Yamafuji, K. See Yoshida, Tadasi.

Yamaguchi, S., structure of amorphous films by electron diffraction. I. and III., I, 39, 82. Electron diffraction of magnesium attacked by an aqueous chloride solution, I, 55. Electron diffraction of corroded state of metals. II. Corrosion of potassium, sodium, lithium, calcium, and magnesium by water. III. Corrosion of sodium, calcium, and magnesium in aqueous chloride and alkaline solutions, I, 87, 277. N Pattern of electron diffraction, I, 156. Electron diffraction diffraction study of chemical reaction products of metals; reaction between hydrochloric acid and sodium, calcium, beryllium, zinc, and aluminium, I, 381. Electron diffraction study of crystallisation of salts from their aqueous solutions; zinc chloride, I, 453. Electron diffraction and surface structure of acidresisting alloy ferrosilicon (duriron) in sulphuric acid, I, 461.

Yamaguchi, T., determination of inner potential by an electron reflexion method, Ī. 453.

Yamaguti, K. See Asano, M. Yamaha, G., and Araki, Z., action of

saponin on cells of Spirogyra, III, 940.

Yamamoto, M., Young's modulus of elasticity and its change with magnetisation in iron-cobalt alloys, I, 331. Light figures in single crystals of nickel

and copper, I, 455.

Yamao, Y. See Ugami, S.

Yamasaki, F. See Sinma, K.

Yamasaki, H., Moriki, H., and Kobayashi, Kozi, lymphagogue action of corbicula extract, III, 127.

Yamasaki, K., absorption spectra of metallie complex salts of 2:2'-dipyridyl. IV.,

Yamashiro, S., derivatives of diphenylene oxide. V. Bromo-derivatives. VI. 4-Nitrodiphenylene oxide and its derivatives, II, 145, 268.

Yamashita, H., Mori, K., and Miwa, M., action of ionising rays on sea urchins. V. Effects of X-rays on unfertilised eggs and sperm, III, 45.

See also Miwa, M.

Yamashita, K., microscopical studies on cells of Gasserian ganglion of man, III,

Yamato, R., and Hara, T., vitamin-Cavailable from plant sources in Taiwan. IV. Reaction between ascorbic acid and magnesium oxide, II, 59.

Yanagihara, A., rhythmic precipitates. I. Electrical study, I, 46.

Yanagisawa, K., Obayashi, Y., and Takano, M., influence of inorganic oxidising chemical compounds on experimental tuberculosis in guinea-pigs, III, 293.

Yanagita, T. See Amagasa, M.

Yanai, M., and Naito, T., polarisation in heterocyclic rings with aromatic character. XIV. Syntheses of pyrimidine and dipyrimidyl homologues, II,

See also Ochiai, E.

Yang, H. S., nasal flora of children in a day nursery, III, 802. Yang, L. M. See Hsu, F. Y.

Yang, S. H., paraphysis of Megalobatrachus japonicus, III, 949.

Yannet, H., effect of alkalosis on composition of brain, skeletal muscle, liver, and heart, III, 123. Effect of alkalosis on relationship between scrumcalcium and -protein in vivo, III, 289. See also Darrow, D. C.

Yano, W., histo-pathological changes of thyroid in vitamin-A, -B, and -C deficiency, III, 507. Experimental Aavitaminosis in guinea-pigs, III, 518. Resistance of guinea-pigs lacking vitamin-A to diphtheria toxin, III, 518. Resistance of guinea-pigs lacking vitamin-B to diphtheria toxin, III, 519. B-Avitaminosis in guinea-pigs, III, 519. Resistance of guinea-pigs lacking vitamin-C to diphtheria toxin, III, 521.

Yant, W. P. See Schrenk, H. H. Yap, K. S. See Karrer, P.

Yarbrough, M. E. See Dann, W. J.
Yardumian, K. Y., and Alpern, A. N.,
kidney threshold for glucose, III, 883.
Yasaki, T. See Nishina, Y.

Yaskin, J. C. See Reese, W. S.

Yasui, S., Machara, H., Kobayashi, C., and Kao, K. W., lichen scorbuticus [treatment with vitamin-C], III, 1037.

Yasumi, M., effect of solvents on internal rotation of carbonic esters, I, 448.

Yasuna, E. R. See Foley, J. A.

Yasunami, H., clinical application of vitamin B for toxemia of pregnancy, III, 1035.

See also Kominami, Y.

Yatagawa, S., electrolytic determination of indium, I, 281. Yater, W. M., chronic constrictive peri-

carditis, III, 495.

Yaussy, A., and Kiplinger, C. C., m.p. apparatus, I, 388.

Yeakel, E. H., and Rhoades, R. P., comparison of body, adrenal, thyroid, and pituitary weights of emotional and non-

emotional rats, III, 570. Yearian, H. J. See Lark-Horovitz, K. Yegian, D., and Kurung, J. M., glucose-yeast extract medium for isolation of

fungi from sputum, III, 800.

Yen, C. H., and Chen, C. Y., urinary excretion of vi-phage and B. typhosus following phage inoculation in a typhoid carrier, III, 630.

Yenson, M. M. See Haurowitz, F. Yerkes, R. M. See Grether, W. F.

Yeshoda, K. M., milk-clotting enzyme for Withania coagulans, III, 483.

Yglesias, L. Seo Hammond, G.

Yi, C. L., and Meng, H. C., plasma antihæmolytic content and its relation to cholesterol and plasma-protein after injection of cultured organisms and toxins, III, 962.

Yi, C. S., pressure effects of homogeneous rubidium vapour on its resonance lines, I, 137.

Yiengst, M. J. See Lotze, J. C.

Yiey, and Wissler, H., serum-phosphatase, III, 168.

Yntema, L. F. See Juhasz, R.

Yo, H., effects of emetine and carpaine on dysentery amœbæ in culture, IIÎ, 38.

Yódice, A., pericardiotomy, pericardiectomy, and thoracotomy in dog, III,

Yoe, J. H., and Reid, Lewis C., determination of formaldehyde with 5:5-dimethylcyclohexane-1:3-dione, II, 236.

Yogo, E., chinincalcicol as oxytocic; quinine-calcium mixture in obstetrics, III, 1053.

Sce also Kawakami, H.

Yokoh, Y., craniology and osteology of the Dayaks, III, 413.

Yokoyama, J. See Tsuda, K.

Yolton, N., and Rea, C., exerction of androgens and cestrogens in males with mammary carcinoma, III, 577.

Yonkman, F. F., Lehman, A. J., Pfeiffer, C. C., and Chase, H. F., effects of prolonged formaldehyde ingestion, III, 1055. Yoshida, N., changes in plasma-protein and

-phosphatides during winter, III, 7. Yoshida, S., variation of atomic structure factor with wave-length in region of anomalous dispersion, I, 311. K Adsorption edge of iron in various chemical

states, I, 312.
Yoshida, T. See Kituti, Y.
Yoshida, Tadasi, Wo, B., Fukura, T., and Yamafuji, K., carbohydrate metabolism in sugar cane, III, 1083.

Yoshida, Tohiti, and Titani, T., polymerisation of styrene in heavy alcohol, II,

Yoshikatsu, M., fatty oil of awa (Setarica itarica, Beauv.) bran, III, 714. Yoshiki, S. See Kuwada, S.

Yoshimura, K. Sec Ishikawa, F.

Yoshimura, S., iron dissolved in lake waters of Japan. II., I, 60.Yoshino, M., chlorine content of exudates

in pleurisy, III, 425. Yoshio, K. See Kasahara, M.

Yosi-, See under Yoshi-, Yost, D. M. See Bureik, E. J., Naiditeh, S., and Stevenson, D. P.

You, S. S., and Chu, T. M., pharmacology of ya-tan-tze, Brucea javanica, III, 787.

Youle, P. V., hydration of carbon dioxide and stability of hypochlorite aërosols, I,

Youmans, J. B., nutrition of rural Tennessee population, III, 1030.

Youmans,  $\hat{W}$ . B., effect of denervation of intestine on its motor responses at site of distention, III, 582.

Haney, H. F., and Aumann, K. W., relation of groups of adrenaline molecule to its cardio-accelerator action, III, 264.

Haney, H. F., Rush, H. P., and Zavin, W., observations and moving picture studios of motility of human small intestine, III, 679.

Young, A. See Smith, E. Young, A. F. See Ford, M. L. Young, A. M. See Kline, B. S.

Young, B. R., value of body section ræntgenography (planigraphy) in neck and chest, III, 793.

Young,  $D. \dot{P}$ . See Kenyon, J.

Young, F. G., estrogens in experimental canine diabetes mellitus, III, 676.

See also Folley, S. J., Griffiths, M., and Marks, H. P.

Young, G., reinforcement and interference between stimuli, III, 853.

Young, G. T. See Barker, C. C. Young, H. A. See Young, M. B. Young, H. H., jun. See Turkevich, J.

Young, H. Y. See Sideris, C. P. Young, I. M. See Mollison, P. L.

Young J. H., rare ocular developmenta anomalies in association with congenitall and acquired blindness, III, 180.

Young, J.S., Fisher, J.A., and Young, M., healing of experimental wounds in skin of

rabbit, III, 367.

Young, J. Z., Holmes, W. K., and Sanders, F. K., peripheral stump and nerve regeneration, III, 88.

and Medawar, P. B., fibrin suture of peripheral nerves, III, 88.

Young, L. E. See Randall, M. Young, M. See Young, J. S.

Young, M. B., Young, H. A., and Kleiber, M., absorption of oxygen by glutathione in alkaline solutions, II, 283.

Young, R. C., Arch, A., and Shyne, W. V., jun., reaction of anhydrous rare earth bromides with ethyl benzoate and separation of neodymium from lanthanum, I, 278.

Young, R. H., and Moore, Clyde, postvaccinal neuronitis, III, 665

Young, T. F. See Harkins, W. D. Young, W. A., and Clark, E. M., small

epidemic of hypovitaminosis, III, 455. Young, W. C., mating behaviour in female mammals, III, 875.

Boling, J. L., and Blandau, R. J., vaginal smear picture, sexual receptivity, and time of ovulation in albino rat, III, 874.

See also Blandau, R. J., Boling, J. L., Fish, W. R., Soderwall, A. L., and Wilson, J. G.

Young, W. F. See McCance, R. A.

Young, W. G., and Eisner, M., allylic rearrangements. XI. Action of magnesium and zinc on crotyl and methylvinylcarbinyl chlorides, II, 346.

Youngblood, J. C., spinal anæsthesia, III,

Youngken, H. W., and Munch, J. G., Viburnum. IX. Pharmacognosy and pharmacology of V. alnifolium, III, 129.

Youngman, R. A., treatment of intractible pain, III, 858.

Youngner, J. S., Freedman, S. I., and Nunester, W. J., failure of histaminase to prevent anaphylactic or histamine shock in guinea-pigs, III, 810.
Youngstrom, K. A., primary and secondary

motor innervation in Amblystoma, III,

Younker, W. See Tashiro, S. Yousef, Y. L. See El Sherbini, M. A. Youtz, J. P. See DuMond, J.

Yu, S. T., rôle of bile and external pancreatio secretion in experimental high

intestinal obstruction, III, 445. Yu, T. F., effect of cooking on vitamin-C content of vegetables, III, 28. Rabies,

III, 1076.

See also Chu, H. I., and Liu, S. H. Yuan, H. C., and Hua, K. C., determination of configurations of hydroxamic acids, oximes, and hydrazones by cryoscopic data, II, 224.

Yuan, I. C. See Ho, E. A.

Yuasa, K., influence of gas mask on respiratory movements, III, 564. Influence of experimental nasal occlusion on gastric secretion, III, 678.

Yudkin, S., dark adaptation tester, III, 504. Determination of vitamin-A and carotene in human blood, III, 594.

Yueh, C. H., and Adolph, W. H., Chinese celery cabbage. II. Changes in acidity and carbohydrate fraction during growth

and storage, III, 635.

Yuen, D. W., Poo, L. J., Lew, W., and Addis, T., protein anabolism in heart, kidney, and liver after consumption of food proteins, III, 121.

Yui, N., effect of ethyl alcohol on  $p_H$  values determined by glass electrode, and association of ions in alcoholic hydro-chloric acid, I, 84. Dissociation constants of hydrazine, I, 376. Dissociation constant of azoimide, I, 467.

Yuile, C. L., and Hawkins, W. B., azotæmia due to ingestion of blood-proteins, III,

See also Monke, J. V.
Yuill, M. E. See Butler, G. C.
Yukawa, H. See Inouye, Y.
Yule, (Miss) R. B. M. See Hammick,
D. L.

Yun, L. Y. See Chien, S. L.

Yunich, A. M., and Crohn, B. B., atypical regional ileitis; roentgenological limitations, III, 880.

Zabeshinski, J. L., kinetics of sorption and

desorption, I, 409. Zacharias, L. R. See Shelesnyak, M. C. Zacharias, H. H., temperature diffuse scattering, I, 324. Diffuse X-ray diffraction maxima, I, 324. Temperature diffuse scattering of a simple cubic lattice, I, 325. Temperature diffuse

scattering maxima for rock-salt, I, 325. Zacharotschkin, I. D. See Volfson, S. I. Zacharov, A., basic chlorides, I, 337.

Zacharov, S. V., glycogen content and distribution in blood during hyper- and hypo-glycemia, III, 969.

Zacharova, A. I., and Bezel-Sitscheva, V.A., polymerisation of hydrocarbons of the  $C_nH_{2n-4}$  series with vicinal double and triple linkings. II. Cyclic dimerisation of isopropenylacetylene, II, 346.

See also Favorskaja, T. A.

Zacharova, G. V., stabilising and protective action of ferric and aluminium hydroxide sols on suspensions of positively and negatively charged particles, I, 41.

Zade, M. A., assimilation of nitrogen from nodules of legumes, III, 480. Zádor, J., positional reflexes and dis-

turbance of placing reflexes in case with traumatic brain-stem lesion. VIII., III, 985.

Zahl, P. A., Cooper, F. S., and Dunning, J. R., in vivo effects of localised nuclear disintegration products on a transplantable mouse sarcoma, III, I13.

Zahn, C. T. See Spees, A. H.

Zahnd, H., Alfin, R., and Schneider, M., labile sulphur; use of thallous nitrate,

Zaitzev, N. S., dissociation of hydrogen on tungsten and thorium-coated tungsten,

Zaitzev-Jern, H. See Longacre, A. B.

Zaitzeva, V. N. See Feofilaktov, V. V.

Zajarni, A. E. See Riss, I. G. Zak, F., trigeminal reflex (trigeminotympanical reflex), III, 985.

Zaki, A., and Soliman, G., constituents of petroleum extract of Zea mays stigmas, III, 234.

Tadros, IV., p-aldehydophenyland trimethylammonium salts and their condensation and decomposition products, II, 256. Relative directive powers of carboxyl and quaternary ammonium group, II, 363.

Zakon, S. J., bullous dermatitis from elastiglass, III, 698.

Zakutskaja, M. A., condensation of dicarboxylic esters with oxalic ester in presence of sodium. III. Sebacic presence of sodium. III. Sebacic ester. IV. Nonanedicarboxylic ester, II, 280.

and Solomachina, F. C., condensation of dicarboxylic esters with oxalio ester in presence of sodium. V. Decancdicarboxylic ester, II, 280.

Zaky, Y. A. H. Sce Hilditch, T. P.
Zalesky, M., Wells, L. J., Overholser, M. D., and Gomez, E. T., effects of and hypophysectomy replacement therapy on thyroid and adrenals of male ground squirrel, III, 574.

Zamecnik,  $\bar{P}$ . See Gusberg, S. B. Zamislov, A. D. See Bahakina, V. G. Zamuitschkina, K. S., [response of stomach

to tyrosine, alanine, and histamine under various conditions], III, 876.

Zander, D. See Almquist, H. J.

Zander, G., osteogenesis imperfecta tarda with platyspondylisis, III, 65.

Zanko, A. M., and Manusova, F. A., nonaqueous solutions in polarography, I, 345.

Zapp, J. A., jun. See Stadie, W. C.
Zappi, E. V., and Mastropaolo F., R.,
electrolysis of iodonium compounds; attempt to prepare iodonium amalgam, II, 318.

Zaprometov, B. G., Kozirev, A. I., and Melnik, A. A., synthesis of hydrosols of sparingly soluble salts by electrolytic method; lead chromate hydrosols, I, 40.

Zaslavski, I. I., dependence of crystal structure on chemical properties, I, 7.

Zaugg, H. E. Sec Arnold, R. T. Zavelski, A., \(\theta\)-decay, I, I42.
Zavin, IV. See Youmans, IV. B.
Zaytzeff. See under Zaitzev.

Zechmeister, L., and Polgár, A., carotenoid and provitamin-A content of water-melon, III, 594. Silk oak flowers as source of  $\beta$ -carotene, III, 819. See also LeRosen, A. L.

Zeerleder, A. von, and Rohner, F., emission spectrum analysis as a routine quantitative method; application to analysis of pure aluminium, I, 58.

Zehnder, M., fat metabolism in Gaucher's disease, III, 32.

Zeidler, I. I., Komissarova, L. A., and

Golubitzkaja, N. N., equilibrium curves of system styrene-ethylbenzene, I, 377.

Zeisler, E. P., and Wieder, L. M., cutis verticis gyrata and acromegaly, III, 265.

Zeiter, W. J., clinical application of short-

wave diathermy, III, 46. Zelasco, J. F. See Castex, M. R. Zeldes, M. See Blatt, M. L.

Zelenkov, I. V., loparite-bearing horizon at the Lovozero tundras, I, 181.

Zeleny, J., electrical discharges from pointed conductors, I, 357. Ions in gases, I, 357.
Zelianskaja, A. I. See Riss, I. G.

Zeligs, M. A., vitamin- $B_6$  in Parkinsonism, III, 988.

Zelinskaja, T. Sec Ablesova, K.
Zelinski, N. D. Sec Balandin, A. A., and Botvinnik, M. M.

Zelle, K. See Gray, J. S.
Zeller, E. A., enzymic degradation of polyamines. VIII. Application of indigotindisulphonate in enzyme technique. IX. Occurrence of diamine oxidaso in male sperm. Mono- and diamine-oxidase, III, 301, 622, 702. Effect of potassium cyanide ondiamine-oxidase, III, 301. Chemical determination of pregnancy. Micro-determination of ammonia, III, 359. Biological determination of minute amounts of vitamin-A, III, 518. Vitamin- $B_1$  content of Swiss bread, III, 1035.

and Birkhäuser, H., in vitro pregnancy test, III, 197. Choline-esterase and  $B_1$ -avitaminosis, III, 284. Female sex hormones, pregnancy, and cholineesterase, III, 579.

See also Birkhäuser, H.

Zellhoefer, G. F. See Copley, M. J. Zelmanov, J. L., Joule-Thomson effect in helium at low temperatures, I, 459.

Zelson, C., prevention of rickets in premature infants with parenteral administration of single massive doses of vitamin-D, III, 29.

and Steinitz, E., treatment of cryptorchidism with chorionic gonadotropic hormone and male sex hormone, III,

Zempei, S. See Hosoya, Y. Zener, F. B. See Phatak, N. M. Zenin, N. S. See Pickat, A. K.

Zéphiroff, P., antisexual substance in urine of young girl, III, 871.

Drosdovsky, C., and Dobrovskaïa-Zavad-

skaïa, N., œstrogen in ovaries of prepubertal calf, III, 268. See also Dobrovolskaia-Zavadskaia, N.

Zeyland, J., and Piasecka-Zeyland, E., immunity to tuberculosis produced by B.C.G. vaccine, III, 231.

Ziehis, J., and Shaughnessy, H. J., experimental western equine encephalomyelitis, III, 312.

See also Shaughnessy, H.J.

Ziegler, J. B. See Rosen, S. R. Ziegler, M. R. See Hansen, A. E., and

McQuarrie, I.

Ziegler, W. M., and Connor, R., a-bromosulphones, II, 2. See also Barr, E.
Ziegler, W. T. Seo Andrews, D. H.
Ziff, M., and Chargaff, E., blood coagul-

ation. XI. Action of heparin, III, 647. See also Chargaff, E.

Ziffren, S. E. Seo Cullen, S. C. Zijlstra, R. See Bartstra, H. K. G.

Zika, M., effect of  $\beta$ -indolylacetic acid on starch grain size in Solanum tuberosum, III, 402.

Zilberman, J. I., reaction of hydrogen sulphide with sulphites. II, I, 344.

and Fridman, V. M., reaction of hydrogen sulphide with sulphites. I. Formation of sodium dithionate by action of hydrogen sulphide on solutions of sodium sulphite and sodium hydrogen sulphite, I, 19.

Zilberman-Granovskaja, A. A., measurement of small vapour pressures. I. Naphthalene, camphor, and glycerol. II. cis- and trans-Isomerides, I, 458.

Zilberman-Granovskaja, A. A., and Schugam, E. A., measurement of small vapour III. Halogen-substituted pressurés. benzenes, I, 458.

Zillig, G., paragrammatism, III, 993. Zilva, S. S. Sec Kellie, A. E., and Snow, G, A,

Zimens, K. E., magnetic measurements on active aluminium oxides and hydroxides, I, 32.

and Hedvall, J. A., influence of changes of structure and particle size on mag-

netic susceptibility, I, 404. Zimmerli, A. See Nield, C. II.

Zimmerman, H. M. See Street, H. R.,

and Winternitz, M. C.

Zimmerman, L., and Rugh, R., effect of age on development of egg of Rana pipiens, III, 413.

Zimmerman, P. W., growth regulators of plants and formative effects induced with \(\beta\)-naphthoxy-compounds, III, 1084.

Zimmermann, F. von, clinical and serological findings after administration of high doses of insulin, III, 1006.

Zimmermann, H. See Scheurer, O. Zimmermann, J., triterpenediols. IV. Constitution of onocerin. V. Arnidiol from dandelion blossoms [ Taraxacum officinale, L.], II, 73; 111, 714.

Zin, N. M., solubility of ethylene and propylene in liquid nitrogen and liquid

oxygen, I, 462.

Zinn, C. J., and Griffith, J. Q., jun., effect of sympathectomy on blood supply of bone, III, 733.

Zinsser, H. See Hazen, H. H.

Ziperovitsch, A. S. See Goldstein, B. I.

Zirkle, R. E., radiobiological importance of energy distribution along ionisation tracks, III, 133. Influence of intracellular acidity on radiosensitivity of various organisms, III, 299. Influence of X-ray intensity and intracellular acidity on radiosensitivity, III, 385. See also Ting, T. P.

Ziskind, E., memory defects during

metrazol therapy, III, 666.

Zisman, W. A., spreading of oils on water.
I. Ionised molecules having only one polar group, I, 411.

Zisserman, L., susceptibility to poison ivy dermatitis, III, 479.

Zittle, C. A., and O'Dell, R. A., determination of cystine: use of cuprous oxide for simultaneous reduction and precipitation of cystine as the cuprous mercaptide, II, 308. Chemistry of ox spermatozoa; lipin, sulphur, cystine, nitrogen, phosphorus, and nucleic acid content of whole spermatozoa and of parts obtained by physical means, III, 1009.

Zitzer, A. I. Sce Kabatschnik, M. I. Zmaezynski, E. W., lecture experiment

for distinguishing fructose glucose [sucrose, lactose, or maltose], ĬI, 59.

Zobell, C. E., and Stadler, J., effect of oxygen tension on oxygen uptake of lake bacteria, III, 1066.

Zohn, B., skin testing in newborn, III,

Zoll, P. M. See Blumgart, H. L., and Schlesinger, M. J.

Zollner, S. See Breu, W.
Zolnikova, N. K., exhaustion and re-cstablishment of salivary secretion in aged dogs, III, 13.

Zondek, B., action of gonadotropin from pregnancy urine, III, 192.

and Sklow, J., inhibition of pseudopregnancy reaction in rabbits with estrogenic and androgenic hormones. III, 671. Inactivation of estrone by liver after exclusion of reticulo-endothelial system, III, 761.

Zondek, H., anginal symptoms in hypothyroidism, III, 974.

and Karp, J., secondary myxcedema, III,

Zondek, S. G. See Brückmann, G. Zopf, L. C., growth effects of aneurin hydro-

chloride, ascorbic acid, and phyto-hormones on belladonna and Ricinus, III, 540.

Zophy, W. H. See Wolfrom, M. L. Zoroastrova, V. M. See Kamai, G. Zoss, A. O., and Hennion, G. F., substituted acetylenes and their derivatives. XLII. Preparation, properties, and derivatives of a-acctylenic acids, II, 183.

Zotov, G. V., deviation of  $\Delta E - \Delta p_{\rm H}$  curve from the rectilinear, using a glass electrode with a ballistic potentiometer,

I. 279.

See also Nekrassov, B. V.

Zsadon, B. See Went, S. Zschiesche, E., and Mitchell, H. K., pantothenic and hydroxypantothenic acids in animal nutrition, III, 286.

Zubkov, A. A., active relaxation of muscle, III, 982.

Zueker, M. B. See Bing, R. J. Zuckerman, C. Seo Jacobi, M.

Zuckerman, S., experimental blast injuries to lungs, III, 84. Problem of blast injuries, III, 564.

and Fulton, J. F., motor cortex in Galago and Perodicticus, III, 663.

and Parkes, A. S., secondary sexual characters in monkeys, III, 191.

See also Dow, D., and Swyer, G. I. M. Zuckerman, S. S., and Stuckenhoff, H. E., virilism associated with adrenal cell-rest

tumour, III, 1005. Zuelzer, W. W., and Bigler, J. A., disturbances of hepatic function in ictorus gravis, III, 201.

Zuffanti, S., solubility product; demonstration introducing the common ion effect

and formation of complex ions, I, 115.

Zuidema, H. H., and Waters, G. W., ring method for determination of interfacial

tension, I, 307.

Zuitin, A. I., and Pavlovetz, M. T., mutation in Drosophila under natural conditions, III, 548.

Zuverkalov, D., gasometric determination of amino-acids, III, 947.
Zvetkov, V., and Marinin, V., orientation

of molecules of anisotropic liquids during

streaming, I, 323.

Zvjagintzev, O. E., and Tschkonia, M., compounds of salts of bivalent manganese with pyridine and ethylenediamine, I, 385.

Zweidler, R. See Rupe, H.